

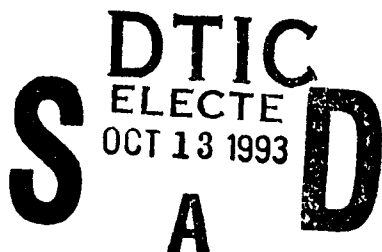
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**Additional Resistance and Seakeeping Model Tests
of a U.S. Coast Guard 120 FT Notional WPB Design**



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METRIC CONVERSION FACTORS

Approximate Conversions to Metric Measures

Symbol	When You Know	Multiply By	To Find	Symbol
LENGTH				
in	inches	* 2.5	centimeters	cm
ft	feet	30	centimeters	cm
yd	yards	0.9	meters	m
mi	miles	1.6	kilometers	km
AREA				
in ²	square inches	6.5	square centimeters	cm ²
ft ²	square feet	0.09	square meters	m ²
yd ²	square yards	0.8	square meters	m ²
mi ²	square miles	2.6	square kilometers	km ²
	acres	0.4	hectares	ha
MASS (WEIGHT)				
oz	ounces	28	grams	g
lb	pounds	0.45	kilograms	kg
	short tons (2000 lb)	0.9	tonnes	t
VOLUME				
tsp	teaspoons	5	milliliters	ml
tbsp	tablespoons	15	milliliters	ml
fl oz	fluid ounces	30	milliliters	ml
c	cups	0.24	liters	l
pt	pints	0.47	liters	l
qt	quarts	0.95	liters	l
gal	gallons	3.8	liters	l
ft ³	cubic feet	0.03	cubic meters	m ³
yd ³	cubic yards	0.76	cubic meters	m ³
TEMPERATURE (EXACT)				
°F	Fahrenheit temperature	5/9 (after subtracting 32)	Celsius temperature	°C

* 1 in = 2.54 (exactly).

Approximate Conversions from Metric Measures

Symbol	When You Know	Multiply By	To Find	Symbol
LENGTH				
mm	millimeters	0.04	inches	in
cm	centimeters	0.4	inches	in
m	meters	3.3	feet	ft
m	meters	1.1	yards	yd
km	kilometers	0.6	miles	mi
AREA				
cm ²	square centimeters	0.16	square inches	in ²
m ²	square meters	1.2	square yards	yd ²
km ²	square kilometers	0.4	square miles	mi ²
ha	hectares (10,000 m ²)	2.5	acres	
MASS (WEIGHT)				
g	grams	0.035	ounces	oz
kg	kilograms	2.2	pounds	lb
t	tonnes (1000 kg)	1.1	short tons	
VOLUME				
ml	milliliters	0.03	fluid ounces	fl oz
l	liters	0.125	cups	c
l	liters	2.1	pints	pt
l	liters	1.06	quarts	qt
l	liters	0.26	gallons	gal
m ³	cubic meters	35	cubic feet	ft ³
m ³	cubic meters	1.3	cubic yards	yd ³
TEMPERATURE (EXACT)				
°C	Celsius temperature	9/5 (then add 32)	Fahrenheit temperature	°F

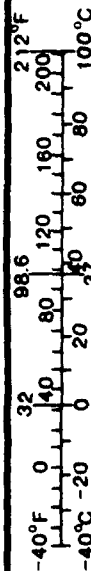


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DRUG QUALITY MANAGEMENT

NOMENCLATURE

A_p	projected planing bottom area, sq.ft
b	beam over chines, ft
C_D	drag coefficient based on beam squared, R/qb^2
CG	center of gravity
C_F	ATTC frictional resistance coefficient
C_F	frictional resistance coefficient based on beam squared, $C_F(S/b^2)$
CP	center of pressure, intersection of the resultant hydrodynamic force vector with the keel baseline
C_R	resistance coefficient, R/wb^3
C_T	total resistance coefficient, R/qS
C_v	velocity coefficient, V/\sqrt{gb}
C_Δ	load coefficient, Δ/wb^3
d	transom draft, depth of keel at transom below still water level, ft
Fn_v	volume Froude Number, $V/\sqrt{(gV^{1/3})} = C_v/C_\Delta^{1/6}$
f	frequency, Hz
f_e	frequency of encounter, Hz
$f\sqrt{(b/g)}$	non-dimensional frequency
g	acceleration due to gravity, 32.17 fps ²
$H_{1/3}$	significant wave height, 4 x RMS wave elevation, ft
k	radius of gyration, ft
L/b	length-beam ratio
LBP	length between perpendiculars, ft
LOG	longitudinal position of the center of gravity (CG), measured from the transom parallel to the keel, ft
LCP	longitudinal position of the hydrodynamic center of pressure (CP), measured from the transom parallel to the keel, ft
LOA	length overall, ft
l_c	chine wetted length, ft
l_k	keel wetted length, ft
l_m	mean wetted length, $(l_k + l_c)/2$
l_m/b	mean wetted length-beam ratio
n	vertical acceleration or load factor, g units
n_0	intercept with the y-axis in the correlation of acceleration, see Figures 12, 13 and 14, g units

p	waterplane coefficient
q	dynamic pressure, $\frac{1}{2} \rho V^2$
R	resistance, lb
R_{aw}	added resistance in waves, lb
RMS	process root-mean-square
RMS_n	RMS acceleration, g units
RMS_θ	RMS pitch, degrees
R_n	Reynolds Number
S	wetted area, sq.ft
S/b^2	non-dimensional wetted area
t	time, seconds
$t\sqrt{(g/b)}$	non-dimensional time
V	velocity, fps
V_k	speed, knots
w	specific weight of water, 62.28 lb/cu.ft fresh water at 71.5°F, 64.00 lb/cu.ft salt water at 59°F
β	deadrise angle, degrees
Δ	displacement, lb
θ	pitch angle excursion, degrees
ρ	density of water, w/g
τ	trim angle of keel, degrees
∇	volumetric displacement, Δ/w , cu.ft

Area loading	$A_p/\nabla^{2/3} = p(L/b)/C_\Delta^{2/3}$
Slenderness ratio	$L/\nabla^{1/3} = (L/b)/C_\Delta^{1/3}$
Speed-length ratio	$V_k/\sqrt{L} = 3.36 C_v/\sqrt{(L/b)}$

Subscripts

s	denotes full-size or ship scale
m	denotes model scale

Sign Convention

The trim is positive in the bow up sense and is zero when the afterbody keel is horizontal.

The pitch is positive in the bow up sense and is zero when the afterbody keel is horizontal.

The heave is the height of the tow point above the still water surface, is positive vertically upward, and is zero when the tow point is at the still water level.

The draft is the depth of the keel at transom below the still water surface, is positive vertically downward, and is zero when the keel at transom is at the still water level.

The drag is a horizontal force vector, positive aft in the bow-to-stern sense, and is zero when the boat is at rest.

The velocity is a horizontal vector, positive forward in the stern-to-bow sense, and is zero when the boat is at rest.

The vertical acceleration is a vertical vector, positive upward, and is zero when the boat is at rest.

INTRODUCTION

The Davidson Laboratory is conducting a series of planing boat studies in support of the U.S. Coast Guard's pursuit of R&D projects which will enable it to evaluate advanced marine vehicles and advanced technologies which enhance the effectiveness of ship resources. The experimental results obtained at the Davidson Laboratory are intended to contribute to a relevant technical data base for the evaluation of vessels which are in service and for designs which are being considered for service.

The objective of this research is to obtain basic hydrodynamic information about planing hulls through the use of captive model tests. This information is required for the study of the transverse stability, yaw/roll stability, course keeping, maneuvering and control of planing hulls, and for the study of seakeeping, and the loss of speed in a seaway, of planing hulls.

The research results presented in this report are concerned with an extension of the seakeeping performance of the 120 ft WPB design previously reported¹ to complement the EHP tests reported by Zseleczy², and to include the effects of parametric variations in LCG (36%, 39% and 42% LBP forward of transom) and in significant wave height (2.9, 4.6 and 10.7 ft) in the speed range of 10 to 35 knots.

MODEL AND INSTRUMENTATION

The 1/18-scale model of the 120 ft WPB shown in Figure 1, which was previously fabricated and tested¹, was used for these tests. The body lines and profile are presented on Figures 2 and 3. The model hulls were made of fiberglass and epoxy to USCG specifications. Internal body frames and cut-out decks were included to make the models rigid but lightweight. A lower deck, made of marine plywood, was installed inside each model and extended for about a third of each model's length. These decks were used for attaching weights, instrumentation, and the apparatus which attached the models to the overhead towing carriage.

Each model was towed through a pitch pivot box, which had its axis located at the intersection of the thrust line with the LCG. Thus the towpoint was at the LCG at a height of 6.38 ft above the baseline. Here, as throughout this report, values are given in terms of full-size equivalents. Above the

pivot box a drag balance was mounted and attached to twin vertical heave poles supported by a standard free-to-heave apparatus. The model was towed at constant speed along the center line of the tank at zero roll and yaw with freedom to pitch and heave. Five accelerometers were mounted in each model as shown on Figure 4. An inclinometer mounted in the model measured the trim in calm water and a linear differential transformer attached to the heave poles was used to measure the heave. The pitch excursions in waves were measured by a rotary differential transformer. A thin mylar strip was fastened to the lower chine of the 120 ft WPB to ensure sharp edges on the scaled model. The spray rail built into the 120 ft WPB at the upper chine was V-shaped in cross-section, which resulted in a sharp edge, and therefore no mylar strip was required at the upper chine. The model was ballasted to the scaled values presented in Table 1.

TEST FACILITY

Tests were conducted in the Davidson Laboratory Tank 3 which is 313 ft long, 12 ft wide and 5.5 ft deep. A monorail above the water extends down the tank's length. A towing carriage rides on this rail and is attached to the model below it through the heave poles. The carriage is towed by a steel cable driven by an electric motor at one end of the tank. The model is accelerated up to the required constant speed, and data are acquired in the data trap. The signals are transmitted by overhead cables to shore-based signal conditioning equipment and thence to an on-line computer for processing and storage.

Calm water underwater photographs are taken using a water-tight camera box and a large underwater mirror. A color video camera was mounted ahead and to port of the model being tested. All runs were monitored on a shore based monitor, and a video recording was made of each run.

The Tank 3 wavemaker is an articulated double flap wet-back type in which the upper and lower flaps are powered by hydraulic cylinders. A dedicated computer generates the signals which control the movements of each of the hydraulic actuators.

The specified sea states had significant wave heights of 2.9, 4.6 and 10.7 ft. These waves were generated and measured by a stationary wave-wire prior to tests with the model. When the specified waves were obtained their

parametric settings were locked in the computer. A moving wave strut was mounted forward and to port of the model to monitor the waves encountered during model tests. The full size spectra of the generated sea states, together with the corresponding idealized Pierson-Moskowitz spectra, are presented on Figures 5 and 6.

MODEL TESTS

Calm Water

The 120 ft WPB, ballasted to 135 long tons, was tested at speeds of 10, 15, 20, 25, 30, and 35 knots, for three values of the LCG: 39.60 ft, 42.90 ft, and 46.20 ft forward of the aft perpendicular, corresponding to 36, 39, and 42 percent LBP. The model towpoint position remained constant at the intersection of the thrust line with the 42.9 ft LCG, 6.38 ft above the baseline, for all the tests. Trim, heave, and drag were measured. The effect of thrust unloading was modeled: at each speed an upward unloading force was applied at the tow-point representing the vertical component of thrust arising from the inclination of the thrust line. Thus the resultant force applied to the model acted along the shaft line.

The water temperature was maintained at a value of 71.5°F which was checked twice daily. Underwater photographs were taken to record the wetted areas. These photographs were subsequently measured to determine the wetted lengths at keel and chine. The calm water test directory given in Table 2 summarizes the calm water test conditions.

Irregular Waves

The model's ballast was adjusted to obtain the specified radius of gyration in pitch about the 42.9 ft LCG, equal to 25 percent of the LBP. The model tow point position remained constant (at the 42.9 ft LCG and 6.38 ft height above the baseline) for all the LCG tests. It has been shown³ that the position of the towpoint can be displaced longitudinally from the LCG by as much as 78 percent of the beam without having any effect on the motions or the accelerations of a planing hull.

The model was tested at the half-load displacement of 135 long tons, as noted in Table 1, with the LCG located 36%, 39% and 42% LBP forward of the transom, in Pierson-Moskowitz seas having significant wave heights of 2.9, 4.6, and 10.7 ft. Pitch, heave, drag, and five vertical accelerations (see Figure 4) were measured. Figure 1 is a photograph of the model undergoing tests in 10.7 ft waves at 20 knots.

Runs were made at the following matrix of test conditions:

Significant <u>Wave Height, ft</u>	Modal Period <u>seconds</u>	Speed <u>knots</u>	
2.9	4.71	10(5)35*	*(Denoting speed increments of 5 knots)
4.6	5.94	10(5)30	
10.7	9.05	10(5)30	

The model was accelerated to a steady speed and then data were acquired in the 150 ft data trap. Additional runs were made in different sections of the seaway, by inserting a known time offset into the wavemaker computer, until a minimum of 70 waves had been encountered at each test condition. The statistics were then calculated for this group of combined runs. The test directory in Table 4 summarizes the rough water test conditions.

DATA PROCESSING

The instrumentation was calibrated by applying known displacements to the motion transducers and wave strut, known loads to the force balance, and gravity multiples to the accelerometers. All calibrations were linear and a "least-squares" technique was used to determine the calibration rates, which were checked daily.

The primary measured quantities in the calm water tests included the drag, trim, and CG heave, and in the rough water tests included the drag, pitch, CG heave, and five accelerations. The heave is defined as the height of the tow point above the still water surface. The transom draft was calculated tests from the observed heave and the position of the tow point relative to the keel at the transom.

A quantity known as the "static keel wetted length" (SKWL) was calculated from the trim and the transom draft. The SKWL is defined by the intersection of the still water surface with the keel profile in the running condition and does not allow for the wave rise at the keel. The SKWL, and its use, is more fully described later in the section on Calm Water Results.

The velocities were computed from the time taken to travel through the data trap which was 50 ft long for the calm water tests and 150 ft long for the rough water tests. During data collection all data channels were scanned at a rate of 250 Hz and the results stored in the computer for appropriate processing.

At tankside, wetted areas were estimated by a computer program so that the full size ship resistance could be calculated, for the purpose of determining thrust unloading. However the actual wetted areas were later calculated from the underwater photographs taken during the calm water tests, inserted into the program, and used to compute ship resistance. A zero roughness allowance was used in the computations.

For the irregular wave tests the mean values described above were computed, and in addition a peak-trough analysis was carried out for the pitch, heave, and the five accelerations. The peak-trough analysis computes for each signal the mean and rms, the number of oscillations, the average of the peaks and troughs, the average of the 1/3-highest and the 1/10-highest peaks and troughs, and the extreme values of the peaks and troughs. All data were scaled to full size units.

Wave height statistics generated from time-series data sometimes involve an analysis procedure which identifies wave crests and troughs as the maximum and minimum values of wave height occurring between zero crossings, or between crossings of a reference data level. This is not the procedure customarily employed at the Davidson Laboratory. The procedure used in this study identifies all maxima and minima regardless of magnitude, thereby avoiding a bias that would otherwise be introduced into the statistics.

Spectral analyses were performed on the five accelerations, the pitch and heave time histories, and the encountered wave. Additionally 1/3-octave RMS analyses were performed on the five accelerations for those who wish to assess the habitability of the designs.

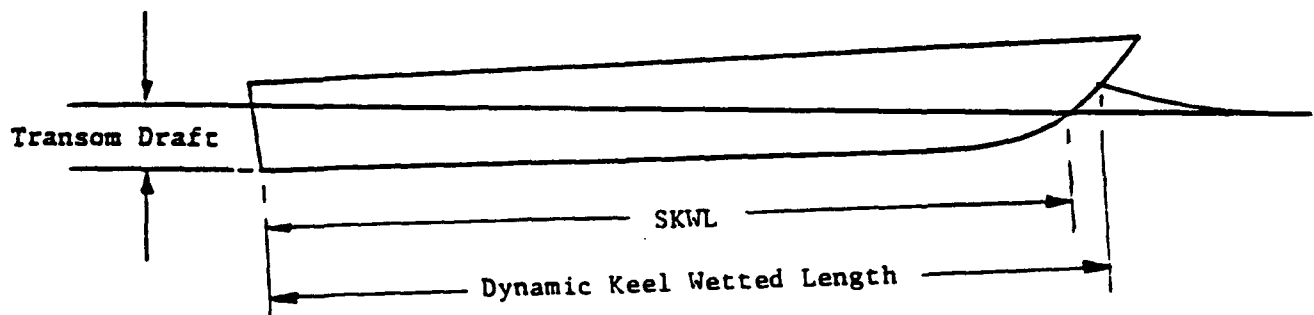
RESULTS

Calm Water Tests

The expanded full-size calm water results are presented in Table 3. The tabulated quantities include: Run number, Speed, Keel trim, Draft of the keel at transom, SKWL, Wetted lengths at keel and chine as read from the underwater photographs, Faired values of wetted length, Wetted area, and Drag which is synonymous with resistance.

Resistance expansion of planing boats requires a knowledge of the wetted area which is calculated from the keel and chine wetted lengths observed in the underwater photographs. In rough water, however, it is not possible to use underwater photography and some other means has to be used to find the mean wetted area. This is the function of the static keel wetted length, because the SKWL can be calculated from the mean trim and transom draft in both calm and rough water. The dynamic wetted lengths at keel and chine from the underwater photographs are correlated with the static keel wetted length to provide the means for estimating the wetted area in rough water. This also serves to fair the wetted length data and for consistency the faired wetted lengths are used in both calm and rough water expansions.

The static keel wetted length is defined by the intersection of the still water surface with the keel profile in the running condition, and is computed from the observed trim, the transom draft, and the known geometry of the keel. The SKWL is shown in Sketch A:



Sketch A

The measured wetted lengths given in Table 3 were correlated with the static keel wetted length (SKWL) and the resulting faired values are also shown in Table 3.

The faired values of keel and chine wetted length, together with the girths of each WPB were used to compute the wetted areas given in Table 3 and this wetted area was used to calculate the full-size drag or resistance tabulated in Table 3. The trim and resistance is plotted as a function of speed Figure 11.

Irregular Wave Tests

All the rough water data was expanded to full-size and the results are presented in Tables 5 to 14.

The SKWL was calculated for each rough water run, and the keel and chine wetted lengths were estimated from the SKWL using the relationship established in the calm water tests. These wetted lengths, together with the girths of the WPB, were used to compute the wetted area for each run, and these wetted areas were used in turn to calculate the full-size drag or resistance given in Table 5. The "added drag" was calculated by subtracting from the rough water drag, without unloading, the calm water drag with unloading, at the corresponding conditions of LCG and speed.

A spectral analysis and a peak-trough analysis were performed on each group of runs tested at the same speed and sea state. The results of the spectral analysis are presented in Tables 6 to 10.

The full-size spectral estimates of the five accelerations on the 120 ft WPB are tabulated in Table 6. The center frequency of each pass band is tabulated in the left hand column, and the variance density in each pass band is given in subsequent columns for the five accelerometers from bow to transom, see Figure 4.

The maximum frequency of the analysis is chosen so that there is no contribution to the variance from frequencies above the maximum. The numerical value of the maximum center frequency is somewhat arbitrary being a function of the scanning rate and the scale ratio. For example, in Table 6.1 the maximum frequency is 7.3657 Hz, and the frequency scale is divided into 30 intervals resulting in bandwidths of 0.2455 Hz. This detailed analysis

facilitates the transformation into the 1/3-octave presentation. Again in Table 6.1, at the center frequency of 0.25 Hz the variance density in the pass band for the #5 accelerometer is 0.04296 g^2/Hz . Multiplying by the bandwidth of 0.2455 Hz, the contribution to the variance in this band is 0.0105 g^2 . Proceeding in this manner the detailed spectra can be transformed into broader and more practical bandwidths and into the 1/3-octave format.

The 1/3-octave rms accelerations are tabulated in Table 7. The center frequencies of these 1/3-octave bandwidths are those specified in International Standard ISO 2631 and in MIL-STD-1472A, and they are tabulated in the left hand column. The rms acceleration in each 1/3-octave pass band is given in the subsequent columns for the five accelerometers. It may be noted that the rms is simply the square root of the variance.

The pitch variance spectral density estimates are presented in Table 8; heave spectral densities are presented in Table 9; and encountered wave spectral densities are presented in Table 10.

The results of the peak-trough analysis of the motions and accelerations are presented in Tables 11 to 14. The tabulated statistical quantities include the pitch, heave, and the outputs from the five accelerometers. The RMS and mean values are given in Table 11. Average values of the crests and troughs, (i.e. the maxima and minima in the time histories) are given in Table 12. The 1/3-highest statistics are presented in Table 13 and the 1/10-highest statistics in Table 14.

DISCUSSION

The calm water trim and resistance characteristics are plotted as a function of speed on Figure 7, with LCG location as parameter. As would be expected, moving the LCG aft causes an increase in running trim at all speeds. The variation of the calm water resistance-weight ratio (or drag-weight ratio) is shown on Figure 8 with speed as parameter. The minimum in the 35 knot curve identifies an optimum LCG position mid-way between the 42.9 ft and the 46.2 ft position. Since it is presumably desirable to minimize the drag at the maximum speed, this plot suggests that the LCG should be not less than 43 ft forward of the transom.

The rough water resistance is shown on Figure 9 in the form of a "carpet plot" in order to demonstrate the combined effects of speed and

significant wave height on resistance at the 49 ft LCG condition. This plot is based on a cross plot of the total rough water resistance, the "drag" given in Table 5. Although the resistance increases with significant wave height up to 12 ft, half the increase takes place in the first 4 ft. In seas of 12 ft significant height, the increase in resistance varies from 37 percent at 20 knots to 27 percent at 35 knots.

There is considerable scatter in the added drag values given in Table 5. This may be due to the fact that the added drag is the result of taking the difference of two large numbers. It may also be due to taking the difference between the rough water drag without unloading and the calm water drag with unloading. While the concept of added resistance in waves has its application to displacement ships it is not clear that it is equally applicable to planing craft. There is reason to think that the rough water performance of planing craft is susceptible to more deterministic analysis³.

The motions in rough water are shown on Figure 10. The RMS values of pitch and heave increase more or less linearly with significant wave height. However, while the heave is essentially independent of speed, the pitching motions decrease as the speed increases.

The rms accelerations at various longitudinal locations throughout the boat are related to the midship acceleration, regardless of speed and sea state. This is shown on Figures 11 and 12 where the acceleration at each station from stern to bow is plotted against the midship acceleration as measured by Accelerometer #3. (The accelerometer locations are given on Figure 4). Thus the acceleration at any location can be referred to that measured by Accelerometer #3, located three beams forward of the transom, for all speeds and sea states. Linear trend lines are drawn through the data so that the acceleration at each station may be defined in terms of slope and intercept. A curve fitting technique was used as a guide in selecting these lines, however outlying values were given less weight. The objective here is to present a concise summary of the rough water acceleration characteristics which will be sufficiently precise for engineering purposes.

This concise relationship is summarized on Figure 13 where the intercept (a_0) and relative slope of each trend line is shown as a function of distance forward of the transom. It is therefore possible to predict the acceleration at any location from the midship acceleration alone, and the chart on figure 13. The relation shown on Figure 13 is very similar to that reported

in a basic study of high length-beam ratio planing boats in rough water³. This suggests that the relationship shown on Figure 13 may have universal application, and evidence is beginning to accumulate to that effect.

The effect of speed, sea state, and LCG on the midship acceleration, Accelerometer #3, is shown on Figure 14. Moving the CG forward reduces the accelerations because it reduces the trim, so that the forward LCG is generally beneficial for both acceleration and rough water resistance up to 30 knots. In the smallest waves, 14 percent beam significant height, speed has a minor effect on acceleration from 10 to 30 knots. In the largest waves, 50 percent beam significant height, the accelerations increase linearly with speed up to 30 knots. At a given speed and CG location, the accelerations appear to increase linearly with significant wave height.

CONCLUDING REMARKS

The hydrodynamic characteristics of the 120 ft WPB up to a volume Froude Number of 2.5, as affected by LCG and significant wave height are presented in tabular and graphical form. The forward location of the LCG, 42 percent LBP forward of the transom, is found to result in the minimum resistance and impact accelerations.

In previous studies of planing boats in rough water³ the lowest speed tested was at volume Froude Number of 2.5, therefore the new data presented here provides a significant extension to the existing planing boat data base.

REFERENCES

1. Klosinski, Walter E., and Brown, P. Ward: "Resistance and Seakeeping Model Tests Two USCG Notional Designs of 110 ft and 120 ft WPB Hulls"
Davidson Laboratory Report 2548, February 1987.
2. Zselezcky, John: "Effective Horsepower Model Tests of a U.S. Coast Guard Patrol Boat (WPB)"
U.S. Naval Academy Report EW-26-84, October 1984.
3. Brown, P. Ward and Klosinski, Walter E.: "An Experimental and Theoretical Study of High Length-Beam Ratio Planing Boats in Rough Water"
Davidson Laboratory Report 2133, June 1980.

TABLE 1

HULL CHARACTERISTICS

120 ft WPB at Half Load

Displacement	135.0	ℓ-tons	50.43	lb
LOG forward of AP	42.9	ft	26.8	in
	39.6	ft	26.4	in
	46.2	ft	30.8	in
VOG above baseline	7.66	ft	5.11	in
Maximum beam at upper chine	21.20	ft	14.13	in
Propeller shaft angle, degrees	10.0		10.0	
Pich radius of gyration, percent LBP	25.0		25.0	
LOA	118.79	ft	79.20	in
LBP	110.0	ft	73.33	in

TABLE 2
CALM WATER TEST DIRECTORY
135 l-tons

<u>SPEED</u> <u>knots</u>	<u>39.6 ft LCG</u> <u>RUN</u>	<u>42.9 ft LCG</u> <u>RUN</u>	<u>46.2 ft LCG</u> <u>RUN</u>
0	54	45	68
10	58	46	71
15	59	53	72
20	57	48	73
25	64	49	74
30	65	50	75
35	66	51	76

TABLE 3

CALM WATER FULL-SIZE TEST RESULTS WITH THRUST UNLOADING
(Salt water at 59°F)

120 ft WPB - 135 *l*-tons

RUN	SPEED	KEEL TRIM	TRANSOM DRAFT	SKWL	MEASURED		FAIRED		WETTED AREA	DRAG
					— KEEL	WETTED CHINE	LENGTHS —	CHINE		
	knots	deg	ft	ft	ft	ft	ft	ft	sq.ft	lb
LOG - 39.6 ft										
54	0.0	0.56	4.92	106	-	-	-	-	-	-
58	10.0	0.80	5.22	106	108	-	108	78	2,094	6,000
59	15.0	1.72	6.10	105	106	-	107	74	2,049	16,900
57	20.1	2.74	6.70	102	-	-	104	70	1,971	24,200
64	25.0	2.99	6.51	100	100	66	102	67	1,918	27,700
65	30.0	2.90	5.73	98	99	63	99	62	1,842	30,600
66	35.0	3.12	5.60	95	94	57	96	57	1,752	34,800
LOG - 42.9 ft										
45	0.0	-0.11	4.36	107	-	-	-	-	-	-
46	10.0	0.04	4.64	107	110	-	109	82	2,143	5,100
53	15.0	0.92	5.60	106	108	-	108	78	2,103	15,300
48	20.1	1.82	6.12	104	106	78	106	74	2,040	21,300
49	25.0	2.16	6.08	103	105	72	105	71	1,997	25,300
50	30.0	2.04	5.32	102	104	68	103	69	1,961	28,200
51	35.0	2.09	5.16	101	103	64	102	68	1,938	32,000
LOG - 46.2 ft										
68	0.0	-0.86	3.76	108	-	-	-	-	-	-
71	10.0	-0.77	4.02	108	110	-	110	85	2,181	4,800
72	15.0	-0.08	4.84	108	110	-	109	84	2,162	13,100
73	20.0	0.91	5.55	106	108	84	108	78	2,102	19,800
74	25.0	1.31	5.62	105	107	78	107	75	2,062	24,100
75	30.1	1.16	4.88	104	106	76	106	73	2,036	27,600
76	35.0	1.16	4.71	104	105	72	106	73	2,026	32,400

TABLE 4.1
120 WPB ROUGH WATER RUN DIRECTORY
39.60 ft LCG

SPEED knots	RUNS				Number of Wave Encounters
Significant Wave Height - 2.9 ft					
10	305				73
15	306				57
20	307	308			111
25	309	310			96
30	311	312			95
35	313	314			105
Significant Wave Height - 4.6 ft					
10	315	316*			71
15	317	319			96
20	320	321			92
25	322	328			88
30	329	330	331		131
Significant Wave Height - 10.7 ft					
10	332	333			77
15	334	335	336		100
20	337	338	339		97
25	340	341	342	344	120
30	345	346	347	348	121

*Repeat run

TABLE 4.2
120 WPB ROUGH WATER RUN DIRECTORY
42.90 ft LCG

SPEED knots	RUNS				Number of Wave Encounters
Significant Wave Height - 2.9 ft					
10	233				76
15	234				69
20	235	236			108
25	237	241			98
30	242	243			99
35	244	245			102
Significant Wave Height - 4.6 ft					
10	246				79
15	247	248			102
20	263	264			89
25	265	267			90
30	271	272	273		125
Significant Wave Height - 10.7 ft					
10	274	275			85
15	276	277	278		96
20	290	291	292		89
25	293	294	295	296	110
30	297	298	299	300	115

TABLE 4.3
120 WPB ROUGH WATER RUN DIRECTORY
46.20 ft LCG

SPEED knots	RUNS				Number of Wave Encounters
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Significant Wave Height - 2.9 ft

10	352				69
15	353				61
20	354	356			105
25	357	358			100
30	359	360			103
35	361	362			99

Significant Wave Height - 4.6 ft

10	363				63
15	364	365			93
20	371	372			87
25	373	374			89
30	375	376	377		119

Significant Wave Height - 10.7 ft

10	378	379			76
15	380	381	382		99
20	383	384	385		95
25	386	387	388	389	122
30	390	391	392	393	115

TABLE 5

ROUGH WATER FULL-SIZE RESISTANCE AND ADDED RESISTANCE
(Salt water at 59°F)

120 ft WPB - 135 *l*-tons

RUN	SPEED knots	LOG - 39.6 ft		LOG - 42.9 ft		LOG - 46.2 ft	
		DRAG	ADDED* DRAG	DRAG	ADDED* DRAG	DRAG	ADDED* DRAG
		lb	lb	lb	lb	lb	lb

Significant wave height 2.9 ft

58	10.0	8,100	2,100	6,600	1,500	6,300	1,500
59	15.0	19,500	2,600	17,500	2,200	15,500	2,300
57	20.1	27,600	3,500	23,700	2,400	23,000	3,200
64	25.0	31,600	3,900	26,200	900	27,500	3,400
65	30.0	34,700	4,100	32,200	4,000	31,500	3,800
66	35.0	38,300	3,500	36,600	4,600	36,400	4,000

Significant wave height 4.6 ft

46	10.0	10,600	4,600	9,900	4,800	8,100	3,300
53	15.0	21,800	5,000	19,700	4,400	17,400	4,200
48	20.1	30,000	6,000	26,000	4,700	23,800	4,000
49	25.0	32,700	5,000	30,000	4,800	29,000	1,300
50	30.0	36,100	5,500	33,300	5,100	32,800	400

Significant wave height 10.7 ft

71	10.0	13,100	7,100	10,800	5,700	10,000	5,200
72	15.0	24,400	7,500	21,200	6,000	19,100	6,000
73	20.0	31,500	7,400	29,100	7,800	26,200	6,400
74	25.0	36,100	8,400	33,600	8,300	32,800	8,800
75	30.1	40,900	10,300	37,100	8,800	36,300	8,700

*Note: "Added Drag" equals the calm water drag with thrust unloading, subtracted from the drag in waves without thrust unloading.

TABLE 6.1
ACCELERATION VARIANCE SPECTRAL DENSITY
2.9 ft Significant Wave Height
13.7% Beam
 $C_v = 0.646$
39.60 ft LCG
Speed = 10 knots

Run 305

Accelerometer	#5	#4	#3	#2	#1
Frequency Hz	Spectral Estimates g^2/Hz				
0.00	0.1639E-01	0.1114E-01	0.4191E-02	0.9047E-03	0.2118E-02
0.25	0.4296E-01	0.2919E-01	0.1112E-01	0.2155E-02	0.4311E-02
0.49	0.4002E-01	0.2719E-01	0.1049E-01	0.1968E-02	0.3295E-02
0.74	0.8038E-02	0.5567E-02	0.2210E-02	0.4470E-03	0.4298E-03
0.98	0.1216E-02	0.9148E-03	0.3645E-03	0.9247E-04	0.2587E-04
1.23	0.5046E-03	0.3405E-03	0.1281E-03	0.2899E-04	0.1721E-04
1.47	0.2659E-03	0.1741E-03	0.6491E-04	0.1500E-04	0.1117E-04
1.72	0.1603E-03	0.1758E-03	0.2297E-04	0.1255E-04	0.3017E-05
1.97	0.4752E-03	0.5145E-03	0.6661E-04	0.2582E-04	0.2164E-04
2.21	0.2346E-03	0.2813E-03	0.1510E-04	0.1861E-04	0.1308E-04
2.46	0.1977E-03	0.1542E-03	0.2408E-04	0.2081E-04	0.1756E-04
2.70	0.7141E-04	0.3580E-04	-0.4153E-05	0.1181E-04	0.4714E-05
2.95	0.1048E-03	0.6969E-04	0.1410E-04	0.8459E-05	0.6862E-05
3.19	0.3705E-04	0.2829E-04	-0.4241E-05	0.3536E-05	0.1704E-05
3.44	0.8599E-04	0.6349E-04	0.1045E-04	0.5771E-05	0.5858E-05
3.68	0.1727E-04	0.2248E-04	-0.3328E-05	0.2267E-05	0.9968E-06
3.93	0.6412E-04	0.5053E-04	0.9057E-05	0.4429E-05	0.4048E-05
4.17	0.2272E-04	0.2389E-04	-0.2501E-05	0.2678E-05	0.8932E-06
4.42	0.6205E-04	0.5774E-04	0.7115E-05	0.3784E-05	0.3863E-05
4.67	0.2461E-04	0.3334E-04	-0.1190E-05	0.2289E-05	0.1303E-05
4.91	0.4930E-04	0.4595E-04	0.6688E-05	0.4078E-05	0.3503E-05
5.16	0.2227E-04	0.1998E-04	-0.9951E-06	0.2950E-05	0.1259E-05
5.40	0.5339E-04	0.3466E-04	0.6102E-05	0.4600E-05	0.3484E-05
5.65	0.2374E-04	0.2446E-04	-0.4909E-06	0.4338E-05	0.1765E-05
5.89	0.3991E-04	0.4315E-04	0.5074E-05	0.5186E-05	0.3312E-05
6.14	0.2415E-04	0.2319E-04	-0.1978E-06	0.4489E-05	0.1647E-05
6.38	0.4915E-04	0.3403E-04	0.4834E-05	0.6507E-05	0.3176E-05
6.63	0.2686E-04	0.2529E-04	-0.1854E-06	0.5886E-05	0.1529E-05
6.88	0.4238E-04	0.4240E-04	0.4550E-05	0.7204E-05	0.2735E-05
7.12	0.3203E-04	0.3044E-04	0.9486E-07	0.8197E-05	0.1548E-05
7.37	0.4992E-04	0.3625E-04	0.4428E-05	0.1013E-04	0.2779E-05

TABLE 6.2
ACCELERATION VARIANCE SPECTRAL DENSITY
2.9 ft Significant Wave Height
13.7% Beam
 $C_v = 0.970$
39.60 ft LCG
Speed = 15 knots

Run 306

Accelerometer	#5	#4	#3	#2	#1
Frequency Hz	Spectral Estimates g^2/Hz				
0.00	0.1121E-01	0.8126E-02	0.3620E-02	0.1190E-02	0.1108E-02
0.25	0.4059E-01	0.2887E-01	0.1283E-01	0.4031E-02	0.3702E-02
0.49	0.4690E-01	0.3289E-01	0.1450E-01	0.4420E-02	0.4120E-02
0.74	0.1295E-01	0.9047E-02	0.3918E-02	0.1119E-02	0.9478E-03
0.98	0.3223E-02	0.2437E-02	0.1055E-02	0.2723E-03	0.4640E-04
1.23	0.1822E-02	0.1376E-02	0.5959E-03	0.1550E-03	0.5087E-04
1.47	0.6666E-03	0.5089E-03	0.2172E-03	0.5777E-04	0.2361E-04
1.72	0.3007E-03	0.2968E-03	0.7481E-04	0.2256E-04	0.5681E-05
1.97	0.5244E-03	0.5527E-03	0.1004E-03	0.3789E-04	0.2332E-04
2.21	0.2377E-03	0.2618E-03	0.2342E-04	0.2070E-04	0.1145E-04
2.46	0.2046E-03	0.1499E-03	0.3075E-04	0.2653E-04	0.1824E-04
2.70	0.7552E-04	0.3529E-04	-0.4558E-05	0.1077E-04	0.7263E-05
2.95	0.1082E-03	0.6528E-04	0.1913E-04	0.1107E-04	0.8456E-05
3.19	0.2734E-04	0.1169E-04	-0.3986E-05	0.1475E-05	0.2281E-05
3.44	0.8022E-04	0.5259E-04	0.1432E-04	0.8021E-05	0.7048E-05
3.68	0.1142E-04	0.4259E-05	-0.4816E-05	0.1474E-05	0.1458E-05
3.93	0.5530E-04	0.3626E-04	0.1043E-04	0.5427E-05	0.5166E-05
4.17	0.7844E-05	0.1122E-04	-0.3177E-05	0.1093E-05	0.1068E-05
4.42	0.4558E-04	0.4361E-04	0.1020E-04	0.5989E-05	0.4570E-05
4.67	0.1614E-04	0.1679E-04	-0.2087E-05	0.3892E-05	0.1620E-05
4.91	0.4699E-04	0.3398E-04	0.7848E-05	0.6833E-05	0.4028E-05
5.16	0.1227E-04	0.8761E-05	-0.1966E-05	0.2852E-05	0.1502E-05
5.40	0.4315E-04	0.2801E-04	0.6204E-05	0.5918E-05	0.3570E-05
5.65	0.2277E-04	0.1332E-04	-0.1952E-05	0.3716E-05	0.1186E-05
5.89	0.4532E-04	0.3364E-04	0.5412E-05	0.7166E-05	0.3220E-05
6.14	0.2023E-04	0.1851E-04	-0.1351E-05	0.6111E-05	0.1930E-05
6.38	0.4091E-04	0.2964E-04	0.5120E-05	0.8978E-05	0.3400E-05
6.63	0.1993E-04	0.1149E-04	-0.1544E-05	0.7018E-05	0.1777E-05
6.88	0.3508E-04	0.2304E-04	0.4399E-05	0.9906E-05	0.3124E-05
7.12	0.1876E-04	0.1160E-04	-0.6462E-06	0.1223E-04	0.1146E-05
7.37	0.3995E-04	0.2299E-04	0.4891E-05	0.1549E-04	0.2630E-05

TABLE 6.3
ACCELERATION VARIANCE SPECTRAL DENSITY
2.9 ft Significant Wave Height
13.7% Beam
 $C_v = 1.293$
39.60 ft LCG
Speed = 20 knots

Runs 307, 308

Accelerometer	#5	#4	#3	#2	#1
Frequency Hz	Spectral Estimates g^2/Hz				
0.00	0.5824E-02	0.4327E-02	0.2310E-02	0.1134E-02	0.8937E-03
0.25	0.2977E-01	0.2181E-01	0.1099E-01	0.4984E-02	0.4499E-02
0.49	0.4386E-01	0.3186E-01	0.1533E-01	0.6502E-02	0.6469E-02
0.74	0.1726E-01	0.1254E-01	0.5600E-02	0.2010E-02	0.2088E-02
0.98	0.5319E-02	0.3994E-02	0.1682E-02	0.4167E-03	0.1387E-03
1.23	0.3594E-02	0.2675E-02	0.1139E-02	0.2827E-03	0.9889E-04
1.47	0.1818E-02	0.1274E-02	0.5468E-03	0.1420E-03	0.5971E-04
1.72	0.1008E-02	0.7140E-03	0.2348E-03	0.6027E-04	0.2348E-04
1.97	0.8993E-03	0.7342E-03	0.1629E-03	0.5274E-04	0.3504E-04
2.21	0.4468E-03	0.3905E-03	0.6649E-04	0.2512E-04	0.1481E-04
2.46	0.2823E-03	0.2178E-03	0.5499E-04	0.3175E-04	0.1726E-04
2.70	0.1300E-03	0.9370E-04	0.1171E-04	0.1208E-04	0.4097E-05
2.95	0.9272E-04	0.9862E-04	0.2087E-04	0.1256E-04	0.7857E-05
3.19	0.5099E-04	0.6452E-04	0.1959E-05	0.5688E-06	0.1120E-05
3.44	0.8408E-04	0.8294E-04	0.1700E-04	0.7992E-05	0.6366E-05
3.68	0.4004E-04	0.4660E-04	0.2245E-05	0.1338E-05	0.9584E-06
3.93	0.6529E-04	0.6778E-04	0.1197E-04	0.7775E-05	0.4960E-05
4.17	0.3351E-04	0.4513E-04	0.7742E-06	0.2108E-05	0.6411E-06
4.42	0.5673E-04	0.6385E-04	0.9347E-05	0.6446E-05	0.4204E-05
4.67	0.3759E-04	0.4625E-04	0.5117E-06	0.2072E-05	0.8341E-06
4.91	0.5241E-04	0.5131E-04	0.8691E-05	0.6453E-05	0.3479E-05
5.16	0.3642E-04	0.3836E-04	0.5860E-06	0.2698E-05	0.6052E-06
5.40	0.5281E-04	0.5411E-04	0.6643E-05	0.1006E-04	0.3202E-05
5.65	0.2838E-04	0.3646E-04	0.7752E-06	0.2027E-04	0.1007E-05
5.89	0.4008E-04	0.4439E-04	0.6754E-05	0.2492E-04	0.3004E-05
6.14	0.3394E-04	0.4875E-04	0.1982E-05	0.2380E-04	0.1428E-05
6.38	0.4938E-04	0.6605E-04	0.6901E-05	0.4369E-04	0.3170E-05
6.63	0.3086E-04	0.4597E-04	0.1506E-05	0.2888E-04	0.9942E-06
6.88	0.3942E-04	0.4932E-04	0.5755E-05	0.1953E-04	0.2602E-05
7.12	0.2800E-04	0.3696E-04	0.1599E-05	0.1417E-04	0.1200E-05
7.37	0.4270E-04	0.4301E-04	0.5613E-05	0.1777E-04	0.2733E-05

TABLE 6.4
ACCELERATION VARIANCE SPECTRAL DENSITY
2.9 ft Significant Wave Height
13.7% Beam
 $C_v = 1.616$
39.60 ft LCG
Speed = 25 knots

Runs 309, 310

Accelerometer	#5	#4	#3	#2	#1
Frequency Hz	Spectral Estimates g^2/Hz				
0.00	0.3293E-02	0.2415E-02	0.1298E-02	0.6823E-03	0.5985E-03
0.25	0.2042E-01	0.1476E-01	0.7572E-02	0.3818E-02	0.3849E-02
0.49	0.4036E-01	0.2884E-01	0.1390E-01	0.6262E-02	0.6792E-02
0.74	0.2339E-01	0.1654E-01	0.7488E-02	0.2740E-02	0.2888E-02
0.98	0.8072E-02	0.5738E-02	0.2596E-02	0.7256E-03	0.3606E-03
1.23	0.5267E-02	0.3712E-02	0.1690E-02	0.4611E-03	0.2050E-03
1.47	0.2939E-02	0.2070E-02	0.9271E-03	0.2457E-03	0.1055E-03
1.72	0.1540E-02	0.1177E-02	0.4677E-03	0.1243E-03	0.5366E-04
1.97	0.1007E-02	0.9016E-03	0.2640E-03	0.8417E-04	0.3934E-04
2.21	0.5566E-03	0.5402E-03	0.1368E-03	0.4679E-04	0.2509E-04
2.46	0.2641E-03	0.2405E-03	0.7061E-04	0.3279E-04	0.2016E-04
2.70	0.1511E-03	0.1079E-03	0.2776E-04	0.1648E-04	0.1167E-04
2.95	0.7570E-04	0.6411E-04	0.1743E-04	0.1301E-04	0.8196E-05
3.19	0.6975E-04	0.6903E-04	0.1326E-04	0.6515E-05	0.4507E-05
3.44	0.6308E-04	0.6898E-04	0.1418E-04	0.1004E-04	0.4913E-05
3.68	0.5432E-04	0.6208E-04	0.1105E-04	0.6911E-05	0.2752E-05
3.93	0.5258E-04	0.5082E-04	0.1169E-04	0.1066E-04	0.3839E-05
4.17	0.5061E-04	0.4397E-04	0.9145E-05	0.6560E-05	0.2986E-05
4.42	0.4439E-04	0.4520E-04	0.8482E-05	0.7902E-05	0.3679E-05
4.67	0.4153E-04	0.5085E-04	0.5564E-05	0.5914E-05	0.2726E-05
4.91	0.3645E-04	0.4643E-04	0.5892E-05	0.8102E-05	0.3222E-05
5.16	0.2932E-04	0.3671E-04	0.4601E-05	0.6716E-05	0.2588E-05
5.40	0.2539E-04	0.3382E-04	0.5532E-05	0.8724E-05	0.3141E-05
5.65	0.2852E-04	0.3910E-04	0.4187E-05	0.8078E-05	0.2374E-05
5.89	0.2654E-04	0.4217E-04	0.4994E-05	0.1252E-04	0.2696E-05
6.14	0.2633E-04	0.3895E-04	0.4496E-05	0.1301E-04	0.2061E-05
6.38	0.2913E-04	0.3415E-04	0.5059E-05	0.1785E-04	0.3055E-05
6.63	0.2839E-04	0.2865E-04	0.4235E-05	0.2206E-04	0.2593E-05
6.88	0.2581E-04	0.3401E-04	0.4737E-05	0.6148E-04	0.3054E-05
7.12	0.2546E-04	0.3979E-04	0.3718E-05	0.1637E-03	0.2373E-05
7.37	0.2804E-04	0.3547E-04	0.4580E-05	0.1468E-03	0.2862E-05

TABLE 6.5
ACCELERATION VARIANCE SPECTRAL DENSITY
2.9 ft Significant Wave Height
13.7% Beam
 $C_v = 1.939$
39.60 ft LCG
Speed = 30 knots

Runs 311, 312

Accelerometer	#5	#4	#3	#2	#1
Frequency Hz	Spectral Estimates g^2/Hz				
0.00	0.1184E-02	0.9071E-03	0.5119E-03	0.2921E-03	0.2532E-03
0.25	0.1421E-01	0.1045E-01	0.5316E-02	0.2605E-02	0.2525E-02
0.49	0.4444E-01	0.3215E-01	0.1518E-01	0.6215E-02	0.6131E-02
0.74	0.4329E-01	0.3118E-01	0.1406E-01	0.4697E-02	0.3913E-02
0.98	0.2285E-01	0.1662E-01	0.7587E-02	0.2311E-02	0.9306E-03
1.23	0.1292E-01	0.9408E-02	0.4324E-02	0.1358E-02	0.4449E-03
1.47	0.6049E-02	0.5921E-02	0.2589E-02	0.7374E-03	0.2580E-03
1.72	0.5247E-02	0.3924E-02	0.1665E-02	0.4571E-03	0.1458E-03
1.97	0.3194E-02	0.2299E-02	0.8964E-03	0.2544E-03	0.8702E-04
2.21	0.1840E-02	0.1196E-02	0.4566E-03	0.1433E-03	0.5586E-04
2.46	0.9926E-03	0.5702E-03	0.2428E-03	0.9186E-04	0.3040E-04
2.70	0.5208E-03	0.3171E-03	0.1336E-03	0.6211E-04	0.2393E-04
2.95	0.2457E-03	0.1595E-03	0.6173E-04	0.3204E-04	0.1007E-04
3.19	0.2078E-03	0.1466E-03	0.4794E-04	0.1933E-04	0.1091E-04
3.44	0.1205E-03	0.1005E-03	0.3000E-04	0.1250E-04	0.6106E-05
3.68	0.1120E-03	0.9008E-04	0.2768E-04	0.1302E-04	0.6375E-05
3.93	0.9262E-04	0.6012E-04	0.1663E-04	0.1185E-04	0.3576E-05
4.17	0.1351E-03	0.7479E-04	0.2410E-04	0.1608E-04	0.6221E-05
4.42	0.1045E-03	0.5482E-04	0.1393E-04	0.1568E-04	0.3001E-05
4.67	0.9065E-04	0.5421E-04	0.1472E-04	0.2080E-04	0.4769E-05
4.91	0.6687E-04	0.3996E-04	0.8533E-05	0.1729E-04	0.2674E-05
5.16	0.7710E-04	0.4825E-04	0.1066E-04	0.1325E-04	0.3896E-05
5.40	0.4821E-04	0.4142E-04	0.5081E-05	0.1281E-04	0.2513E-05
5.65	0.4411E-04	0.4764E-04	0.7123E-05	0.1596E-04	0.3887E-05
5.89	0.2208E-04	0.3244E-04	0.3125E-05	0.1436E-04	0.2790E-05
6.14	0.4426E-04	0.4573E-04	0.5528E-05	0.1988E-04	0.4121E-05
6.38	0.4708E-04	0.4277E-04	0.2447E-05	0.2779E-04	0.3060E-05
6.63	0.5777E-04	0.4288E-04	0.5026E-05	0.3397E-04	0.3617E-05
6.88	0.4333E-04	0.3602E-04	0.2028E-05	0.3650E-04	0.2292E-05
7.12	0.4555E-04	0.4048E-04	0.4685E-05	0.5269E-04	0.3724E-05
7.37	0.4420E-04	0.2603E-04	0.2511E-05	0.5457E-04	0.2676E-05

TABLE 6.6
ACCELERATION VARIANCE SPECTRAL DENSITY
2.9 ft Significant Wave Height
13.7% Beam
 $C_v = 2.263$
39.60 ft LCG
Speed = 35 knots

Runs 313, 314

Accelerometer	#5	#4	#3	#2	#1
Frequency Hz	Spectral Estimates g^2/Hz				
0.00	0.3902E-03	0.3516E-03	0.1886E-03	0.1425E-03	0.1527E-03
0.25	0.1175E-01	0.8474E-02	0.4422E-02	0.2148E-02	0.1912E-02
0.49	0.5205E-01	0.3714E-01	0.1827E-01	0.7483E-02	0.6130E-02
0.74	0.7173E-01	0.5133E-01	0.2420E-01	0.8371E-02	0.5505E-02
0.98	0.4687E-01	0.3372E-01	0.1582E-01	0.4942E-02	0.1942E-02
1.23	0.2768E-01	0.1991E-01	0.9595E-02	0.3084E-02	0.9096E-03
1.47	0.1628E-01	0.1189E-01	0.5650E-02	0.1786E-02	0.5497E-03
1.72	0.9001E-02	0.6677E-02	0.3025E-02	0.8852E-03	0.2495E-03
1.97	0.6338E-02	0.4615E-02	0.1957E-02	0.5534E-03	0.1653E-03
2.21	0.3404E-02	0.2507E-02	0.1035E-02	0.3188E-03	0.1114E-03
2.46	0.1654E-02	0.1271E-02	0.5222E-03	0.1858E-03	0.6004E-04
2.70	0.9431E-03	0.6701E-03	0.2877E-03	0.1177E-03	0.4106E-04
2.95	0.4348E-03	0.2797E-03	0.1278E-03	0.5421E-04	0.1628E-04
3.19	0.2492E-03	0.1840E-03	0.6265E-04	0.2818E-04	0.1356E-04
3.44	0.1666E-03	0.1436E-03	0.3728E-04	0.1833E-04	0.5896E-05
3.68	0.1452E-03	0.1234E-03	0.3979E-04	0.2007E-04	0.8008E-05
3.93	0.1314E-03	0.1009E-03	0.3900E-04	0.1966E-04	0.3552E-05
4.17	0.1404E-03	0.9859E-04	0.4007E-04	0.2372E-04	0.6104E-05
4.42	0.1319E-03	0.7345E-04	0.3303E-04	0.2384E-04	0.3510E-05
4.67	0.1349E-03	0.6995E-04	0.2987E-04	0.3174E-04	0.4866E-05
4.91	0.1108E-03	0.6544E-04	0.2602E-04	0.3896E-04	0.2655E-05
5.16	0.7856E-04	0.5444E-04	0.2245E-04	0.4021E-04	0.4777E-05
5.40	0.4753E-04	0.4772E-04	0.1206E-04	0.3722E-04	0.2478E-05
5.65	0.4445E-04	0.5008E-04	0.7191E-05	0.3533E-04	0.5031E-05
5.89	0.4340E-04	0.4502E-04	0.4168E-05	0.3130E-04	0.4063E-05
6.14	0.4178E-04	0.4427E-04	0.5438E-05	0.4553E-04	0.5403E-05
6.38	0.3489E-04	0.4219E-04	0.3876E-05	0.5700E-04	0.3368E-05
6.63	0.4014E-04	0.5205E-04	0.4371E-05	0.4934E-04	0.4219E-05
6.88	0.4044E-04	0.4893E-04	0.3924E-05	0.4546E-04	0.3179E-05
7.12	0.4211E-04	0.4755E-04	0.4848E-05	0.4948E-04	0.4185E-05
7.37	0.4037E-04	0.4114E-04	0.3736E-05	0.6249E-04	0.3071E-05

TABLE 6.7
ACCELERATION VARIANCE SPECTRAL DENSITY
4.6 ft Significant Wave Height
21.7% Beam
 $C_v = 0.646$
39.60 ft LCG
Speed = 10 knots

Run 315

Accelerometer	#5	#4	#3	#2	#1
Frequency Hz	Spectral Estimates g^2/Hz				
0.00	0.4666E-01	0.3204E-01	0.1290E-01	0.4155E-02	0.7980E-02
0.25	0.9663E-01	0.6599E-01	0.2602E-01	0.6756E-02	0.1250E-01
0.49	0.7755E-01	0.5301E-01	0.2077E-01	0.4700E-02	0.7948E-02
0.74	0.1369E-01	0.9559E-02	0.3829E-02	0.8081E-03	0.7728E-03
0.98	0.3060E-02	0.2218E-02	0.9289E-03	0.2246E-03	0.5217E-04
1.23	0.1467E-02	0.1017E-02	0.4128E-03	0.8678E-04	0.4454E-04
1.47	0.9386E-03	0.6324E-03	0.2547E-03	0.5410E-04	0.3288E-04
1.72	0.5571E-03	0.4471E-03	0.1252E-03	0.3684E-04	0.1368E-04
1.97	0.8572E-03	0.7925E-03	0.1584E-03	0.4617E-04	0.4092E-04
2.21	0.3459E-03	0.3457E-03	0.5188E-04	0.2394E-04	0.1390E-04
2.46	0.2923E-03	0.1893E-03	0.6075E-04	0.2704E-04	0.1863E-04
2.70	0.7542E-04	0.2514E-04	0.9446E-06	0.1338E-04	0.1729E-05
2.95	0.1743E-03	0.1009E-03	0.3157E-04	0.1265E-04	0.1003E-04
3.19	0.1944E-04	0.3016E-05	-0.4002E-05	0.3123E-05	-0.2808E-06
3.44	0.1053E-03	0.7600E-04	0.2250E-04	0.7497E-05	0.7961E-05
3.68	0.7315E-06	0.7725E-05	-0.4731E-05	0.2350E-05	-0.4081E-06
3.93	0.9503E-04	0.5716E-04	0.1665E-04	0.6943E-05	0.5506E-05
4.17	0.2718E-04	0.4605E-05	-0.4491E-05	0.4177E-05	-0.2244E-06
4.42	0.8942E-04	0.5090E-04	0.1312E-04	0.6602E-05	0.5378E-05
4.67	0.1887E-04	0.1055E-04	-0.3374E-05	0.2628E-05	0.4920E-06
4.91	0.7614E-04	0.5121E-04	0.1131E-04	0.5710E-05	0.4755E-05
5.16	0.4054E-04	0.1331E-04	-0.3121E-05	0.4963E-05	0.2905E-06
5.40	0.8693E-04	0.4347E-04	0.9472E-05	0.8001E-05	0.3854E-05
5.65	0.2717E-04	0.1539E-04	-0.2040E-05	0.5788E-05	0.5089E-06
5.89	0.6466E-04	0.4442E-04	0.8724E-05	0.7477E-05	0.4066E-05
6.14	0.2846E-04	0.1623E-04	-0.1464E-05	0.6014E-05	0.1535E-05
6.38	0.7444E-04	0.4339E-04	0.8201E-05	0.8603E-05	0.4523E-05
6.63	0.3656E-04	0.1948E-04	-0.1112E-05	0.7475E-05	0.1355E-05
6.88	0.6233E-04	0.3727E-04	0.6812E-05	0.1033E-04	0.3569E-05
7.12	0.2666E-04	0.1939E-04	-0.8847E-06	0.1319E-04	0.1042E-05
7.37	0.6267E-04	0.4247E-04	0.7221E-05	0.1728E-04	0.3453E-05

TABLE 6.8
ACCELERATION VARIANCE SPECTRAL DENSITY
4.6 ft Significant Wave Height
21.7% Beam
 $C_v = 0.646$
39.60 ft LCG
Speed = 10 knots

Run 316

Accelerometer	#5	#4	#3	#2	#1
Frequency Hz	Spectral Estimates g^2/Hz				
0.00	0.4263E-01	0.2885E-01	0.1155E-01	0.3576E-02	0.7177E-02
0.25	0.9520E-01	0.6429E-01	0.2521E-01	0.6181E-02	0.1165E-01
0.49	0.7990E-01	0.5409E-01	0.2114E-01	0.4565E-02	0.7630E-02
0.74	0.1494E-01	0.1039E-01	0.4176E-02	0.8641E-03	0.7679E-03
0.98	0.3128E-02	0.2263E-02	0.9594E-03	0.2264E-03	0.4061E-04
1.23	0.1176E-02	0.8729E-03	0.3443E-03	0.7317E-04	0.3513E-04
1.47	0.7161E-03	0.5372E-03	0.2036E-03	0.4404E-04	0.2727E-04
1.72	0.3409E-03	0.2923E-03	0.6783E-04	0.2102E-04	0.4171E-05
1.97	0.6651E-03	0.6125E-03	0.1070E-03	0.2948E-04	0.2837E-04
2.21	0.2112E-03	0.2320E-03	0.1447E-04	0.1236E-04	0.7051E-05
2.46	0.2421E-03	0.1720E-03	0.4447E-04	0.1797E-04	0.1844E-04
2.70	0.2428E-04	0.9409E-05	-0.1021E-04	0.7437E-05	0.1562E-05
2.95	0.1379E-03	0.9466E-04	0.2672E-04	0.1020E-04	0.9292E-05
3.19	-0.1174E-04	0.6971E-05	-0.1187E-04	0.1199E-05	-0.1896E-05
3.44	0.1129E-03	0.9184E-04	0.1854E-04	0.5896E-05	0.6641E-05
3.68	-0.1227E-05	0.1491E-04	-0.8912E-05	0.7819E-06	-0.1340E-05
3.93	0.8300E-04	0.7166E-04	0.1596E-04	0.5986E-05	0.5263E-05
4.17	0.8466E-06	0.1592E-04	-0.5801E-05	0.2467E-05	-0.8113E-06
4.42	0.8798E-04	0.6882E-04	0.1390E-04	0.5841E-05	0.5076E-05
4.67	0.2132E-04	0.2377E-04	-0.4908E-05	0.3006E-05	0.1357E-06
4.91	0.7296E-04	0.6292E-04	0.1126E-04	0.6300E-05	0.4644E-05
5.16	0.3634E-05	0.1936E-04	-0.3726E-05	0.4351E-05	0.4461E-06
5.40	0.5369E-04	0.5172E-04	0.9829E-05	0.8191E-05	0.4139E-05
5.65	0.9799E-05	0.2647E-04	-0.3376E-05	0.6537E-05	0.3968E-06
5.89	0.5473E-04	0.6334E-04	0.8417E-05	0.7431E-05	0.3463E-05
6.14	0.1106E-04	0.2711E-04	-0.2224E-05	0.4927E-05	0.4761E-06
6.38	0.5412E-04	0.4887E-04	0.8313E-05	0.7755E-05	0.3509E-05
6.63	0.1917E-04	0.2969E-04	-0.1814E-05	0.6732E-05	0.7609E-06
6.88	0.5309E-04	0.5782E-04	0.6806E-05	0.1049E-04	0.3630E-05
7.12	0.1817E-04	0.3338E-04	-0.2027E-05	0.1421E-04	0.1099E-05
7.37	0.4885E-04	0.4553E-04	0.6581E-05	0.2154E-04	0.3229E-05

TABLE 6.9
ACCELERATION VARIANCE SPECTRAL DENSITY
4.6 ft Significant Wave Height
21.7% Beam
 $C_v = 0.970$
39.60 ft LCG
Speed = 15 knots

Runs 317, 319

Accelerometer	#5	#4	#3	#2	#1
Frequency Hz	Spectral Estimates g^2/Hz				
0.00	0.5436E-01	0.3898E-01	0.1843E-01	0.7402E-02	0.7216E-02
0.25	0.1446E+00	0.1030E+00	0.4785E-01	0.1786E-01	0.1644E-01
0.49	0.1400E+00	0.9912E-01	0.4539E-01	0.1605E-01	0.1451E-01
0.74	0.3783E-01	0.2675E-01	0.1195E-01	0.3652E-02	0.2500E-02
0.98	0.1319E-01	0.9520E-02	0.4283E-02	0.1145E-02	0.7041E-04
1.23	0.6065E-02	0.4398E-02	0.1977E-02	0.5319E-03	0.9164E-04
1.47	0.3665E-02	0.2650E-02	0.1178E-02	0.3084E-03	0.6647E-04
1.72	0.2195E-02	0.1652E-02	0.6248E-03	0.1544E-03	0.1921E-04
1.97	0.2228E-02	0.1879E-02	0.5638E-03	0.1604E-03	0.7521E-04
2.21	0.1070E-02	0.9194E-03	0.2701E-03	0.7895E-04	0.1663E-04
2.46	0.7914E-03	0.5640E-03	0.2437E-03	0.8762E-04	0.2951E-04
2.70	0.2805E-03	0.1882E-03	0.6985E-04	0.2651E-04	-0.2912E-05
2.95	0.4511E-03	0.3145E-03	0.1330E-03	0.4638E-04	0.1766E-04
3.19	0.1071E-03	0.8354E-04	0.2696E-04	0.9777E-05	-0.4886E-05
3.44	0.2626E-03	0.2006E-03	0.7942E-04	0.2892E-04	0.1309E-04
3.68	0.4351E-04	0.4303E-04	0.7886E-05	0.6119E-05	-0.3421E-05
3.93	0.1890E-03	0.1423E-03	0.5642E-04	0.2495E-04	0.1106E-04
4.17	0.4028E-04	0.3480E-04	0.3954E-05	0.9243E-05	-0.2495E-05
4.42	0.1570E-03	0.1239E-03	0.4315E-04	0.2443E-04	0.9027E-05
4.67	0.1605E-04	0.3150E-04	-0.1144E-05	0.8292E-05	-0.1835E-05
4.91	0.1150E-03	0.9843E-04	0.3151E-04	0.1903E-04	0.7446E-05
5.16	0.8067E-05	0.1852E-04	-0.5350E-05	0.4799E-05	-0.1764E-05
5.40	0.9385E-04	0.7754E-04	0.2322E-04	0.1558E-04	0.6654E-05
5.65	0.7489E-05	0.1404E-04	-0.6259E-05	0.6301E-05	-0.9167E-06
5.89	0.8574E-04	0.6517E-04	0.1896E-04	0.1717E-04	0.6032E-05
6.14	0.9660E-05	0.1303E-04	-0.7145E-05	0.9257E-05	-0.4273E-06
6.38	0.7613E-04	0.6483E-04	0.1515E-04	0.1689E-04	0.5784E-05
6.63	0.1199E-04	0.1270E-04	-0.6562E-05	0.1172E-04	-0.3614E-06
6.88	0.7718E-04	0.5615E-04	0.1386E-04	0.2536E-04	0.5431E-05
7.12	0.1999E-04	0.1486E-04	-0.5861E-05	0.2434E-04	0.5252E-06
7.37	0.7471E-04	0.5730E-04	0.1182E-04	0.3551E-04	0.5458E-05

TABLE 6.10
ACCELERATION VARIANCE SPECTRAL DENSITY
4.6 ft Significant Wave Height
21.7% Beam
 $C_v = 1.293$
39.60 ft LCG
Speed = 20 knots

Runs 320, 321

Accelerometer	#5	#4	#3	#2	#1
Frequency Hz	Spectral Estimates g^2/Hz				
0.00	0.4340E-01	0.3257E-01	0.1763E-01	0.9198E-02	0.7531E-02
0.25	0.1454E+00	0.1076E+00	0.5641E-01	0.2815E-01	0.2465E-01
0.49	0.1692E+00	0.1236E+00	0.6253E-01	0.2944E-01	0.2699E-01
0.74	0.6081E-01	0.4345E-01	0.2041E-01	0.7664E-02	0.6017E-02
0.98	0.2651E-01	0.1889E-01	0.8568E-02	0.2319E-02	0.1602E-03
1.23	0.1539E-01	0.1091E-01	0.5040E-02	0.1456E-02	0.1901E-03
1.47	0.9111E-02	0.6502E-02	0.3026E-02	0.9152E-03	0.1217E-03
1.72	0.6336E-02	0.4325E-02	0.1928E-02	0.5485E-03	0.1397E-04
1.97	0.5548E-02	0.3484E-02	0.1445E-02	0.4591E-03	0.9838E-04
2.21	0.3208E-02	0.2091E-02	0.8232E-03	0.2465E-03	0.8687E-05
2.46	0.2167E-02	0.1549E-02	0.6861E-03	0.2365E-03	0.4900E-04
2.70	0.1208E-02	0.8067E-03	0.3574E-03	0.1132E-03	-0.1219E-04
2.95	0.9972E-03	0.7122E-03	0.3304E-03	0.1290E-03	0.2999E-04
3.19	0.4646E-03	0.3276E-03	0.1497E-03	0.5228E-04	-0.1123E-04
3.44	0.5393E-03	0.3670E-03	0.1813E-03	0.7956E-04	0.2174E-04
3.68	0.2732E-03	0.1845E-03	0.7011E-04	0.3141E-04	-0.9707E-05
3.93	0.3798E-03	0.2888E-03	0.1168E-03	0.5663E-04	0.1720E-04
4.17	0.1730E-03	0.1500E-03	0.4373E-04	0.2376E-04	-0.7672E-05
4.42	0.2580E-03	0.2131E-03	0.8515E-04	0.5080E-04	0.1444E-04
4.67	0.1078E-03	0.8100E-04	0.2263E-04	0.2141E-04	-0.5908E-05
4.91	0.1962E-03	0.1514E-03	0.5746E-04	0.4024E-04	0.1186E-04
5.16	0.7205E-04	0.5838E-04	0.7587E-05	0.1625E-04	-0.4574E-05
5.40	0.1523E-03	0.1109E-03	0.4047E-04	0.3459E-04	0.1073E-04
5.65	0.4403E-04	0.3955E-04	0.1846E-05	0.2614E-04	-0.3578E-05
5.89	0.1100E-03	0.1043E-03	0.3009E-04	0.4527E-04	0.9916E-05
6.14	0.2678E-04	0.3966E-04	-0.4522E-05	0.2924E-04	-0.2345E-05
6.38	0.9525E-04	0.9345E-04	0.2263E-04	0.5968E-04	0.9668E-05
6.63	0.2055E-04	0.3260E-04	-0.6544E-05	0.4279E-04	-0.1590E-05
6.88	0.7218E-04	0.7121E-04	0.1703E-04	0.5095E-04	0.8269E-05
7.12	0.8718E-05	0.2704E-04	-0.7943E-05	0.3434E-04	-0.1493E-05
7.37	0.6943E-04	0.7095E-04	0.1458E-04	0.4746E-04	0.7682E-05

TABLE 6.11
ACCELERATION VARIANCE SPECTRAL DENSITY
4.6 ft Significant Wave Height
21.7% Beam
 $C_v = 1.616$
39.60 ft LCG
Speed = 25 knots

Runs 322, 328

Accelerometer	#5	#4	#3	#2	#1
Frequency Hz	Spectral Estimates g^2/Hz				
0.00	0.2558E-01	0.1942E-01	0.1140E-01	0.6962E-02	0.5667E-02
0.25	0.9083E-01	0.6654E-01	0.3718E-01	0.2129E-01	0.1947E-01
0.49	0.1303E+00	0.9339E-01	0.4850E-01	0.2482E-01	0.2482E-01
0.74	0.6115E-01	0.4311E-01	0.2028E-01	0.7979E-02	0.7829E-02
0.98	0.2596E-01	0.1832E-01	0.8249E-02	0.2210E-02	0.5332E-03
1.23	0.1834E-01	0.1299E-01	0.5855E-02	0.1624E-02	0.3007E-03
1.47	0.1028E-01	0.7234E-02	0.3305E-02	0.9902E-03	0.1593E-03
1.72	0.6715E-02	0.4586E-02	0.2041E-02	0.6349E-03	0.5905E-04
1.97	0.5227E-02	0.3412E-02	0.1436E-02	0.4848E-03	0.1027E-03
2.21	0.3097E-02	0.2114E-02	0.8902E-03	0.2845E-03	0.4451E-04
2.46	0.1660E-02	0.1165E-02	0.5652E-03	0.2114E-03	0.5102E-04
2.70	0.1009E-02	0.6330E-03	0.3099E-03	0.1131E-03	0.1754E-04
2.95	0.6406E-03	0.4204E-03	0.2207E-03	0.9825E-04	0.3151E-04
3.19	0.3537E-03	0.2402E-03	0.1168E-03	0.4292E-04	0.4802E-05
3.44	0.2914E-03	0.2134E-03	0.1015E-03	0.5228E-04	0.1620E-04
3.68	0.1907E-03	0.1424E-03	0.5287E-04	0.2515E-04	-0.4490E-06
3.93	0.1852E-03	0.1468E-03	0.6207E-04	0.3566E-04	0.1298E-04
4.17	0.1168E-03	0.1035E-03	0.2939E-04	0.1272E-04	0.7006E-06
4.42	0.1056E-03	0.9656E-04	0.4090E-04	0.2381E-04	0.1203E-04
4.67	0.5634E-04	0.5628E-04	0.1456E-04	0.7832E-05	0.2846E-05
4.91	0.6970E-04	0.7214E-04	0.2431E-04	0.1869E-04	0.1067E-04
5.16	0.5135E-04	0.5683E-04	0.8478E-05	0.9256E-05	0.7770E-06
5.40	0.6661E-04	0.7100E-04	0.2129E-04	0.2185E-04	0.6990E-05
5.65	0.4181E-04	0.5533E-04	0.9198E-05	0.1681E-04	-0.3532E-06
5.89	0.5656E-04	0.7081E-04	0.1928E-04	0.2963E-04	0.6212E-05
6.14	0.4098E-04	0.6493E-04	0.6402E-05	0.2406E-04	0.6455E-06
6.38	0.5069E-04	0.6069E-04	0.1397E-04	0.3155E-04	0.6886E-05
6.63	0.2544E-04	0.3891E-04	0.1797E-05	0.2712E-04	0.1810E-05
6.88	0.4148E-04	0.4928E-04	0.1042E-04	0.1097E-03	0.6866E-05
7.12	0.3365E-04	0.4098E-04	0.2655E-05	0.2896E-03	0.2308E-05
7.37	0.4064E-04	0.5155E-04	0.1056E-04	0.2503E-03	0.6211E-05

TABLE 6.12
ACCELERATION VARIANCE SPECTRAL DENSITY
4.6 ft Significant Wave Height
21.7% Beam
 $C_v = 1.939$
39.60 ft LCG
Speed = 30 knots

Runs 329, 330, 331

Accelerometer	#5	#4	#3	#2	#1
Frequency Hz	Spectral Estimates g^2/Hz				
0.00	0.2416E-01	0.1866E-01	0.1116E-01	0.6991E-02	0.6078E-02
0.25	0.1359E+00	0.1020E+00	0.5724E-01	0.3284E-01	0.2991E-01
0.49	0.2433E+00	0.1788E+00	0.9459E-01	0.4897E-01	0.4521E-01
0.74	0.1408E+00	0.1012E+00	0.4950E-01	0.2075E-01	0.1693E-01
0.98	0.6256E-01	0.4476E-01	0.2092E-01	0.6577E-02	0.1839E-02
1.23	0.4128E-01	0.2973E-01	0.1402E-01	0.4485E-02	0.1005E-02
1.47	0.2794E-01	0.2014E-01	0.9402E-02	0.2937E-02	0.6114E-03
1.72	0.1934E-01	0.1390E-01	0.6417E-02	0.1951E-02	0.2814E-03
1.97	0.1377E-01	0.9840E-02	0.4484E-02	0.1422E-02	0.2436E-03
2.21	0.9563E-02	0.6806E-02	0.3028E-02	0.9428E-03	0.1367E-03
2.46	0.6133E-02	0.4470E-02	0.2016E-02	0.7119E-03	0.1345E-03
2.70	0.4546E-02	0.3086E-02	0.1380E-02	0.4813E-03	0.6369E-04
2.95	0.3285E-02	0.2099E-02	0.9986E-03	0.3726E-03	0.6151E-04
3.19	0.2365E-02	0.1525E-02	0.7223E-03	0.2727E-03	0.2000E-04
3.44	0.1699E-02	0.1104E-02	0.5347E-03	0.2311E-03	0.3707E-04
3.68	0.1206E-02	0.8449E-03	0.3812E-03	0.1644E-03	0.5056E-05
3.93	0.9009E-03	0.6612E-03	0.2966E-03	0.1606E-03	0.1912E-04
4.17	0.7174E-03	0.5122E-03	0.2056E-03	0.1230E-03	-0.1279E-06
4.42	0.5485E-03	0.3925E-03	0.1720E-03	0.1277E-03	0.1433E-04
4.67	0.4413E-03	0.3035E-03	0.1190E-03	0.9208E-04	0.1347E-05
4.91	0.3596E-03	0.2401E-03	0.1005E-03	0.8659E-04	0.1414E-04
5.16	0.2627E-03	0.1594E-03	0.6410E-04	0.6372E-04	0.1849E-05
5.40	0.2243E-03	0.1260E-03	0.5949E-04	0.7305E-04	0.1284E-04
5.65	0.1748E-03	0.1199E-03	0.3864E-04	0.5450E-04	0.2138E-05
5.89	0.1356E-03	0.1179E-03	0.3741E-04	0.6065E-04	0.1223E-04
6.14	0.9787E-04	0.8009E-04	0.2028E-04	0.5818E-04	0.3747E-05
6.38	0.9278E-04	0.7228E-04	0.2194E-04	0.7381E-04	0.1086E-04
6.63	0.7711E-04	0.6571E-04	0.8737E-05	0.7231E-04	0.3407E-05
6.88	0.8230E-04	0.7034E-04	0.1482E-04	0.1058E-03	0.1044E-04
7.12	0.6754E-04	0.5759E-04	0.4233E-05	0.1345E-03	0.1740E-05
7.37	0.6576E-04	0.5652E-04	0.9331E-05	0.1909E-03	0.8608E-05

TABLE 6.13
ACCELERATION VARIANCE SPECTRAL DENSITY
10.7 ft Significant Wave Height
50.5% Beam
 $C_v = 0.646$
39.60 ft LCG
Speed = 10 knots

Runs 332, 333

Accelerometer	#5	#4	#3	#2	#1
Frequency Hz	Spectral Estimates g^2/Hz				
0.00	0.1604E+00	0.1133E+00	0.5346E-01	0.2702E-01	0.4114E-01
0.25	0.2598E+00	0.1803E+00	0.7838E-01	0.3088E-01	0.4905E-01
0.49	0.1799E+00	0.1236E+00	0.5140E-01	0.1594E-01	0.2456E-01
0.74	0.3502E-01	0.2421E-01	0.1017E-01	0.2349E-02	0.1631E-02
0.98	0.1478E-01	0.1044E-01	0.4534E-02	0.1079E-02	0.1871E-03
1.23	0.8313E-02	0.5790E-02	0.2521E-02	0.5981E-03	0.1361E-03
1.47	0.5578E-02	0.3919E-02	0.1719E-02	0.4155E-03	0.9850E-04
1.72	0.3548E-02	0.2591E-02	0.1136E-02	0.2905E-03	0.4543E-04
1.97	0.3022E-02	0.2464E-02	0.9399E-03	0.2361E-03	0.7169E-04
2.21	0.1930E-02	0.1642E-02	0.6089E-03	0.1760E-03	0.3863E-04
2.46	0.1648E-02	0.1187E-02	0.4830E-03	0.1443E-03	0.5094E-04
2.70	0.9799E-03	0.6973E-03	0.2917E-03	0.1019E-03	0.2446E-04
2.95	0.9587E-03	0.6781E-03	0.2817E-03	0.8872E-04	0.3322E-04
3.19	0.4821E-03	0.3591E-03	0.1543E-03	0.5923E-04	0.1138E-04
3.44	0.5520E-03	0.4047E-03	0.1649E-03	0.5522E-04	0.2229E-04
3.68	0.2549E-03	0.2002E-03	0.8529E-04	0.3625E-04	0.6287E-05
3.93	0.3404E-03	0.2316E-03	0.9832E-04	0.3587E-04	0.1340E-04
4.17	0.1355E-03	0.9621E-04	0.4224E-04	0.2903E-04	0.2672E-05
4.42	0.2197E-03	0.1537E-03	0.6188E-04	0.3160E-04	0.1063E-04
4.67	0.7867E-04	0.6051E-04	0.2276E-04	0.2200E-04	0.2743E-05
4.91	0.1640E-03	0.1197E-03	0.3962E-04	0.2227E-04	0.9199E-05
5.16	0.4016E-04	0.4836E-04	0.9369E-05	0.1868E-04	0.2096E-05
5.40	0.1090E-03	0.9755E-04	0.2787E-04	0.2284E-04	0.6820E-05
5.65	0.1816E-04	0.2947E-04	0.3429E-05	0.1863E-04	0.1307E-05
5.89	0.9231E-04	0.7105E-04	0.2059E-04	0.2084E-04	0.6670E-05
6.14	0.1535E-04	0.1922E-04	0.5883E-07	0.1918E-04	0.2089E-05
6.38	0.7321E-04	0.6563E-04	0.1547E-04	0.2478E-04	0.6539E-05
6.63	0.5459E-05	0.2364E-04	-0.1299E-05	0.2583E-04	0.2434E-05
6.88	0.6225E-04	0.5813E-04	0.1241E-04	0.3641E-04	0.6827E-05
7.12	0.6869E-05	0.2420E-04	-0.2781E-05	0.5341E-04	0.4761E-05
7.37	0.6606E-04	0.6386E-04	0.1003E-04	0.1029E-03	0.1066E-04

TABLE 6.14
ACCELERATION VARIANCE SPECTRAL DENSITY
10.7 ft Significant Wave Height
50.5% Beam
 $C_v = 0.970$
39.60 ft LCG
Speed = 15 knots

Runs 334, 335, 336

Accelerometer	#5	#4	#3	#2	#1
Frequency Hz	Spectral Estimates g^2/Hz				
0.00	0.2079E+00	0.1544E+00	0.8361E-01	0.4711E-01	0.4886E-01
0.25	0.3768E+00	0.2757E+00	0.1415E+00	0.6977E-01	0.6767E-01
0.49	0.3001E+00	0.2168E+00	0.1070E+00	0.4676E-01	0.4212E-01
0.74	0.8241E-01	0.5857E-01	0.2708E-01	0.8851E-02	0.5343E-02
0.98	0.4210E-01	0.2991E-01	0.1346E-01	0.3549E-02	0.7851E-03
1.23	0.2746E-01	0.1956E-01	0.9024E-02	0.2518E-02	0.6572E-03
1.47	0.2035E-01	0.1450E-01	0.6842E-02	0.2006E-02	0.5026E-03
1.72	0.1453E-01	0.1019E-01	0.4755E-02	0.1387E-02	0.3485E-03
1.97	0.1228E-01	0.8327E-02	0.3823E-02	0.1191E-02	0.3574E-03
2.21	0.9576E-02	0.6574E-02	0.3060E-02	0.1015E-02	0.2030E-03
2.46	0.7988E-02	0.5833E-02	0.2792E-02	0.9668E-03	0.1979E-03
2.70	0.5943E-02	0.4345E-02	0.2129E-02	0.7782E-03	0.1214E-03
2.95	0.5221E-02	0.3738E-02	0.1838E-02	0.7567E-03	0.1596E-03
3.19	0.3844E-02	0.2705E-02	0.1310E-02	0.6050E-03	0.9904E-04
3.44	0.3460E-02	0.2438E-02	0.1160E-02	0.5388E-03	0.1003E-03
3.68	0.2611E-02	0.1855E-02	0.8694E-03	0.4180E-03	0.4308E-04
3.93	0.2323E-02	0.1644E-02	0.7647E-03	0.3957E-03	0.5429E-04
4.17	0.1668E-02	0.1160E-02	0.5268E-03	0.3276E-03	0.1990E-04
4.42	0.1561E-02	0.1089E-02	0.4961E-03	0.3205E-03	0.3458E-04
4.67	0.1112E-02	0.7715E-03	0.3490E-03	0.2602E-03	0.7663E-05
4.91	0.1064E-02	0.7196E-03	0.3323E-03	0.2654E-03	0.2199E-04
5.16	0.7148E-03	0.4796E-03	0.2173E-03	0.2337E-03	0.4559E-05
5.40	0.7245E-03	0.4958E-03	0.2196E-03	0.2385E-03	0.1971E-04
5.65	0.4788E-03	0.3305E-03	0.1292E-03	0.2157E-03	0.6513E-05
5.89	0.5208E-03	0.3787E-03	0.1416E-03	0.2402E-03	0.2183E-04
6.14	0.3178E-03	0.2314E-03	0.7617E-04	0.2374E-03	0.9306E-05
6.38	0.3552E-03	0.2590E-03	0.9720E-04	0.2639E-03	0.1941E-04
6.63	0.1937E-03	0.1311E-03	0.4360E-04	0.2809E-03	0.9998E-05
6.88	0.2384E-03	0.1588E-03	0.6207E-04	0.3949E-03	0.2511E-04
7.12	0.1055E-03	0.6794E-04	0.2224E-04	0.5848E-03	0.2416E-04
7.37	0.1799E-03	0.1178E-03	0.4557E-04	0.9228E-03	0.4824E-04

TABLE 6.15
ACCELERATION VARIANCE SPECTRAL DENSITY
10.7 ft Significant Wave Height
50.5% Beam
 $C_v = 1.293$
39.60 ft LCG
Speed = 20 knots

Runs 337, 338, 339

Accelerometer	#5	#4	#3	#2	#1
Frequency Hz	Spectral Estimates g^2/Hz				
0.00	0.2493E+00	0.1946E+00	0.1204E+00	0.7674E-01	0.6341E-01
0.25	0.4896E+00	0.3756E+00	0.2205E+00	0.1310E+00	0.1084E+00
0.49	0.4293E+00	0.3235E+00	0.1803E+00	0.9841E-01	0.8064E-01
0.74	0.1471E+00	0.1078E+00	0.5469E-01	0.2329E-01	0.1359E-01
0.98	0.8565E-01	0.6261E-01	0.3070E-01	0.1120E-01	0.2308E-02
1.23	0.6193E-01	0.4496E-01	0.2177E-01	0.7859E-02	0.1442E-02
1.47	0.5034E-01	0.3665E-01	0.1761E-01	0.6178E-02	0.7187E-03
1.72	0.4289E-01	0.3161E-01	0.1554E-01	0.5492E-02	0.5617E-03
1.97	0.3694E-01	0.2736E-01	0.1414E-01	0.5433E-02	0.1462E-02
2.21	0.2866E-01	0.2143E-01	0.1133E-01	0.4532E-02	0.2090E-02
2.46	0.2285E-01	0.1727E-01	0.8996E-02	0.3633E-02	0.2512E-02
2.70	0.1735E-01	0.1278E-01	0.6335E-02	0.2638E-02	0.1999E-02
2.95	0.1426E-01	0.1026E-01	0.4869E-02	0.2446E-02	0.1370E-02
3.19	0.1137E-01	0.7947E-02	0.3628E-02	0.2229E-02	0.6025E-03
3.44	0.1032E-01	0.7110E-02	0.3325E-02	0.2198E-02	0.3090E-03
3.68	0.8313E-02	0.5715E-02	0.2759E-02	0.1730E-02	0.1228E-03
3.93	0.7156E-02	0.4977E-02	0.2457E-02	0.1372E-02	0.2364E-03
4.17	0.5489E-02	0.3807E-02	0.1848E-02	0.1001E-02	0.3083E-03
4.42	0.4604E-02	0.3255E-02	0.1516E-02	0.9550E-03	0.4703E-03
4.67	0.3458E-02	0.2431E-02	0.1045E-02	0.8371E-03	0.4088E-03
4.91	0.2983E-02	0.2106E-02	0.9026E-03	0.8353E-03	0.3177E-03
5.16	0.2276E-02	0.1613E-02	0.6476E-03	0.7517E-03	0.1275E-03
5.40	0.2140E-02	0.1523E-02	0.6046E-03	0.7820E-03	0.1097E-03
5.65	0.1657E-02	0.1127E-02	0.4018E-03	0.7489E-03	0.9440E-04
5.89	0.1519E-02	0.1058E-02	0.3795E-03	0.7917E-03	0.1285E-03
6.14	0.1067E-02	0.7604E-03	0.2490E-03	0.7842E-03	0.6195E-04
6.38	0.1027E-02	0.7153E-03	0.2527E-03	0.8987E-03	0.5265E-04
6.63	0.7677E-03	0.4919E-03	0.1468E-03	0.9657E-03	0.2109E-04
6.88	0.7232E-03	0.4838E-03	0.1628E-03	0.1365E-02	0.7856E-04
7.12	0.4338E-03	0.2780E-03	0.7629E-04	0.2114E-02	0.1166E-03
7.37	0.5347E-03	0.3239E-03	0.1177E-03	0.2891E-02	0.1850E-03

TABLE 6.16
ACCELERATION VARIANCE SPECTRAL DENSITY
10.7 ft Significant Wave Height
50.5% Beam
 $C_v = 1.616$
39.60 ft LCG
Speed = 25 knots

Runs 340, 341, 342, 344

Accelerometer	#5	#4	#3	#2	#1
Frequency Hz	Spectral Estimates g^2/Hz				
0.00	0.2422E+00	0.1927E+00	0.1263E+00	0.8664E-01	0.7332E-01
0.25	0.5261E+00	0.4100E+00	0.2531E+00	0.1619E+00	0.1372E+00
0.49	0.5259E+00	0.4006E+00	0.2317E+00	0.1351E+00	0.1130E+00
0.74	0.2035E+00	0.1502E+00	0.7766E-01	0.3521E-01	0.2231E-01
0.98	0.1049E+00	0.7680E-01	0.3787E-01	0.1385E-01	0.3284E-02
1.23	0.7756E-01	0.5648E-01	0.2797E-01	0.1055E-01	0.2975E-02
1.47	0.6079E-01	0.4432E-01	0.2195E-01	0.8439E-02	0.2165E-02
1.72	0.5000E-01	0.3641E-01	0.1817E-01	0.6884E-02	0.1285E-02
1.97	0.4225E-01	0.3100E-01	0.1577E-01	0.6233E-02	0.1227E-02
2.21	0.3387E-01	0.2476E-01	0.1258E-01	0.4912E-02	0.7982E-03
2.46	0.2795E-01	0.2033E-01	0.1034E-01	0.4190E-02	0.8605E-03
2.70	0.2225E-01	0.1572E-01	0.7831E-02	0.3465E-02	0.5651E-03
2.95	0.1888E-01	0.1325E-01	0.6481E-02	0.3305E-02	0.5460E-03
3.19	0.1507E-01	0.1071E-01	0.5111E-02	0.2756E-02	0.2749E-03
3.44	0.1317E-01	0.9344E-02	0.4574E-02	0.2498E-02	0.2948E-03
3.68	0.1069E-01	0.7513E-02	0.3699E-02	0.1965E-02	0.1362E-03
3.93	0.8906E-02	0.6282E-02	0.3112E-02	0.1738E-02	0.1915E-03
4.17	0.6858E-02	0.4921E-02	0.2344E-02	0.1505E-02	0.1045E-03
4.42	0.5913E-02	0.4226E-02	0.1966E-02	0.1534E-02	0.1613E-03
4.67	0.4594E-02	0.3195E-02	0.1395E-02	0.1359E-02	0.6982E-04
4.91	0.4039E-02	0.2853E-02	0.1219E-02	0.1331E-02	0.9222E-04
5.16	0.3280E-02	0.2317E-02	0.9316E-03	0.1152E-02	0.1258E-04
5.40	0.2957E-02	0.2095E-02	0.8333E-03	0.1076E-02	0.5430E-04
5.65	0.2266E-02	0.1572E-02	0.5706E-03	0.9404E-03	0.1218E-04
5.89	0.2053E-02	0.1391E-02	0.5230E-03	0.9745E-03	0.5751E-04
6.14	0.1500E-02	0.9921E-03	0.3435E-03	0.9103E-03	0.1650E-04
6.38	0.1299E-02	0.8919E-03	0.3367E-03	0.9925E-03	0.5539E-04
6.63	0.9091E-03	0.6333E-03	0.2126E-03	0.1278E-02	0.3993E-04
6.88	0.8316E-03	0.5753E-03	0.2027E-03	0.2065E-02	0.1036E-03
7.12	0.5653E-03	0.3570E-03	0.9010E-04	0.3148E-02	0.9217E-04
7.37	0.7733E-03	0.4722E-03	0.1450E-03	0.3945E-02	0.1251E-03

TABLE 6.17
ACCELERATION VARIANCE SPECTRAL DENSITY
10.7 ft Significant Wave Height
50.5% Beam
 $C_v = 1.939$
39.60 ft LCG
Speed = 30 knots

Runs 345, 346, 347, 348

Accelerometer	#5	#4	#3	#2	#1
Frequency Hz	Spectral Estimates g^2/Hz				
0.00	0.2514E+00	0.2056E+00	0.1442E+00	0.1058E+00	0.8884E-01
0.25	0.5806E+00	0.4635E+00	0.3068E+00	0.2120E+00	0.1778E+00
0.49	0.6378E+00	0.4958E+00	0.3056E+00	0.1928E+00	0.1579E+00
0.74	0.2970E+00	0.2240E+00	0.1238E+00	0.6355E-01	0.4055E-01
0.98	0.1762E+00	0.1337E+00	0.7219E-01	0.3372E-01	0.1245E-01
1.23	0.1339E+00	0.1012E+00	0.5543E-01	0.2717E-01	0.1097E-01
1.47	0.1044E+00	0.7812E-01	0.4325E-01	0.2197E-01	0.9237E-02
1.72	0.8346E-01	0.6194E-01	0.3460E-01	0.1840E-01	0.7894E-02
1.97	0.7026E-01	0.5196E-01	0.2900E-01	0.1604E-01	0.7058E-02
2.21	0.5721E-01	0.4269E-01	0.2367E-01	0.1361E-01	0.5809E-02
2.46	0.4786E-01	0.3585E-01	0.2002E-01	0.1239E-01	0.5156E-02
2.70	0.3977E-01	0.2971E-01	0.1646E-01	0.1086E-01	0.4082E-02
2.95	0.3351E-01	0.2537E-01	0.1410E-01	0.1005E-01	0.3661E-02
3.19	0.2778E-01	0.2109E-01	0.1167E-01	0.9111E-02	0.2904E-02
3.44	0.2397E-01	0.1803E-01	0.1002E-01	0.8676E-02	0.2532E-02
3.68	0.2006E-01	0.1485E-01	0.8187E-02	0.7907E-02	0.1961E-02
3.93	0.1742E-01	0.1301E-01	0.7069E-02	0.7566E-02	0.1727E-02
4.17	0.1449E-01	0.1087E-01	0.5684E-02	0.7028E-02	0.1308E-02
4.42	0.1249E-01	0.9353E-02	0.4789E-02	0.6760E-02	0.1126E-02
4.67	0.1036E-01	0.7639E-02	0.3781E-02	0.6382E-02	0.8296E-03
4.91	0.9314E-02	0.6586E-02	0.3254E-02	0.6315E-02	0.7160E-03
5.16	0.7824E-02	0.5315E-02	0.2531E-02	0.6227E-02	0.5118E-03
5.40	0.6826E-02	0.4688E-02	0.2083E-02	0.6408E-02	0.4540E-03
5.65	0.5616E-02	0.3919E-02	0.1542E-02	0.6620E-02	0.2963E-03
5.89	0.4875E-02	0.3489E-02	0.1298E-02	0.7276E-02	0.2426E-03
6.14	0.3910E-02	0.2756E-02	0.9189E-03	0.8055E-02	0.1079E-03
6.38	0.3463E-02	0.2419E-02	0.8177E-03	0.9219E-02	0.1033E-03
6.63	0.2849E-02	0.1925E-02	0.6390E-03	0.1056E-01	0.3789E-04
6.88	0.2721E-02	0.1825E-02	0.6768E-03	0.1212E-01	0.9270E-04
7.12	0.2768E-02	0.1787E-02	0.6515E-03	0.1380E-01	0.9779E-04
7.37	0.3427E-02	0.2125E-02	0.8235E-03	0.1559E-01	0.2212E-03

TABLE 6.18
ACCELERATION VARIANCE SPECTRAL DENSITY
2.9 ft Significant Wave Height
13.7% Beam
 $C_v = 0.646$
42.90 ft LCG
Speed = 10 knots

Run 233

Accelerometer	#5	#4	#3	#2	#1
Frequency Hz	Spectral Estimates g^2/Hz				
0.00	0.1302E-01	0.8712E-02	0.3295E-02	0.7414E-03	0.2005E-02
0.25	0.3307E-01	0.2219E-01	0.8418E-02	0.1615E-02	0.4032E-02
0.49	0.3037E-01	0.2052E-01	0.7874E-02	0.1427E-02	0.3055E-02
0.74	0.6038E-02	0.4180E-02	0.1671E-02	0.3221E-03	0.4034E-03
0.98	0.7728E-03	0.5819E-03	0.2358E-03	0.5436E-04	0.2349E-04
1.23	0.2258E-03	0.1927E-03	0.6444E-04	0.1266E-04	0.1052E-04
1.47	0.1232E-03	0.9684E-04	0.3077E-04	0.7537E-05	0.9042E-05
1.72	0.1488E-03	0.1361E-03	0.1057E-04	0.6728E-05	0.2581E-05
1.97	0.3736E-03	0.3271E-03	0.4215E-04	0.1493E-04	0.1674E-04
2.21	0.1357E-03	0.1499E-03	0.4925E-05	0.1026E-04	0.5554E-05
2.46	0.1157E-03	0.1115E-03	0.1497E-04	0.1173E-04	0.9861E-05
2.70	0.1489E-04	0.2517E-04	-0.4133E-05	0.4134E-05	0.2818E-06
2.95	0.1105E-03	0.6536E-04	0.1092E-04	0.9761E-05	0.7351E-05
3.19	0.8755E-04	0.3984E-04	-0.1865E-05	0.8099E-05	0.3963E-05
3.44	0.8390E-04	0.5643E-04	0.8147E-05	0.5550E-05	0.5703E-05
3.68	0.2047E-04	0.1530E-04	-0.1852E-05	0.1436E-05	0.3896E-06
3.93	0.5239E-04	0.3948E-04	0.6908E-05	0.3296E-05	0.3785E-05
4.17	0.1791E-04	0.2135E-04	-0.7460E-06	0.1264E-05	0.7967E-06
4.42	0.4324E-04	0.4446E-04	0.5825E-05	0.3341E-05	0.3277E-05
4.67	0.1636E-04	0.2994E-04	-0.1016E-05	0.2150E-05	0.9291E-06
4.91	0.5643E-04	0.6304E-04	0.5621E-05	0.4454E-05	0.3516E-05
5.16	0.4730E-04	0.4913E-04	0.1084E-05	0.2316E-05	0.1636E-05
5.40	0.4979E-04	0.4195E-04	0.4978E-05	0.5758E-05	0.3463E-05
5.65	0.2099E-04	0.2850E-04	-0.4713E-06	0.4822E-05	0.1629E-05
5.89	0.3648E-04	0.4053E-04	0.3593E-05	0.6385E-05	0.2900E-05
6.14	0.2211E-04	0.2677E-04	0.1369E-06	0.8004E-05	0.1565E-05
6.38	0.4217E-04	0.3079E-04	0.4068E-05	0.1708E-04	0.3021E-05
6.63	0.3148E-04	0.2135E-04	0.5082E-06	0.1420E-04	0.1696E-05
6.88	0.3776E-04	0.3706E-04	0.3815E-05	0.4492E-04	0.2904E-05
7.12	0.1855E-04	0.3033E-04	0.9573E-06	0.1022E-03	0.2133E-05
7.37	0.3110E-04	0.3562E-04	0.3744E-05	0.7826E-04	0.3443E-05

TABLE 6.19
ACCELERATION VARIANCE SPECTRAL DENSITY
2.9 ft Significant Wave Height
13.7% Beam
 $C_v = 0.970$
42.90 ft LCG
Speed = 15 knots

Run 234

Accelerometer	#5	#4	#3	#2	#1
Frequency Hz	Spectral Estimates g^2/Hz				
0.00	0.1129E-01	0.7137E-02	0.3173E-02	0.9887E-03	0.1196E-02
0.25	0.3767E-01	0.2543E-01	0.1130E-01	0.3374E-02	0.4072E-02
0.49	0.4248E-01	0.2894E-01	0.1273E-01	0.3705E-02	0.4603E-02
0.74	0.1075E-01	0.7397E-02	0.3171E-02	0.8716E-03	0.1067E-02
0.98	0.1851E-02	0.1345E-02	0.5708E-03	0.1308E-03	0.2754E-04
1.23	0.1248E-02	0.8567E-03	0.3645E-03	0.8672E-04	0.4649E-04
1.47	0.5381E-03	0.3653E-03	0.1465E-03	0.3604E-04	0.2693E-04
1.72	0.2860E-03	0.2913E-03	0.4581E-04	0.1383E-04	0.6389E-05
1.97	0.4839E-03	0.5240E-03	0.7749E-04	0.3057E-04	0.2187E-04
2.21	0.1992E-03	0.1919E-03	0.1175E-04	0.1499E-04	0.5446E-05
2.46	0.1913E-03	0.1078E-03	0.2709E-04	0.1858E-04	0.1151E-04
2.70	0.7048E-04	0.2139E-04	-0.5669E-06	0.4011E-05	0.3853E-06
2.95	0.1495E-03	0.6535E-04	0.1998E-04	0.1250E-04	0.9713E-05
3.19	0.9578E-04	0.2587E-04	-0.1793E-05	0.7703E-05	0.4953E-05
3.44	0.1066E-03	0.6386E-04	0.1433E-04	0.9717E-05	0.7928E-05
3.68	0.2163E-04	0.2132E-04	-0.1554E-05	0.2745E-05	0.6006E-06
3.93	0.6245E-04	0.4996E-04	0.1138E-04	0.7435E-05	0.4333E-05
4.17	0.2370E-04	0.1655E-04	-0.1710E-05	0.3365E-05	0.7591E-07
4.42	0.5550E-04	0.3735E-04	0.9823E-05	0.7223E-05	0.3640E-05
4.67	0.1685E-04	0.1728E-04	-0.4370E-06	0.5365E-05	0.9274E-06
4.91	0.6368E-04	0.5278E-04	0.9844E-05	0.8603E-05	0.4575E-05
5.16	0.5299E-04	0.4002E-04	0.1902E-05	0.2941E-05	0.1733E-05
5.40	0.7188E-04	0.4469E-04	0.8392E-05	0.5816E-05	0.3546E-05
5.65	0.4629E-04	0.2347E-04	0.7883E-06	0.3683E-05	0.9705E-06
5.89	0.6651E-04	0.4014E-04	0.6775E-05	0.8120E-05	0.2784E-05
6.14	0.3651E-04	0.2523E-04	0.6023E-06	0.7186E-05	0.5717E-06
6.38	0.4794E-04	0.3678E-04	0.6537E-05	0.1316E-04	0.2787E-05
6.63	0.3467E-04	0.2305E-04	0.1273E-05	0.1228E-04	0.1628E-05
6.88	0.5017E-04	0.3380E-04	0.6511E-05	0.3172E-04	0.3909E-05
7.12	0.2788E-04	0.2066E-04	0.1885E-05	0.6695E-04	0.2391E-05
7.37	0.4025E-04	0.2962E-04	0.6659E-05	0.7115E-04	0.3390E-05

TABLE 6.20
ACCELERATION VARIANCE SPECTRAL DENSITY
2.9 ft Significant Wave Height
13.7% Beam
 $C_v = 1.293$
42.90 ft LCG
Speed = 20 knots

Runs 235, 236

Accelerometer	#5	#4	#3	#2	#1
Frequency Hz	Spectral Estimates g^2/Hz				
0.00	0.4886E-02	0.3652E-02	0.1926E-02		0.8466E-03
0.25	0.2602E-01	0.1896E-01	0.9650E-02		0.4807E-02
0.49	0.3837E-01	0.2756E-01	0.1353E-01		0.7351E-02
0.74	0.1409E-01	0.9975E-02	0.4597E-02		0.2512E-02
0.98	0.3432E-02	0.2403E-02	0.1032E-02		0.1417E-03
1.23	0.2387E-02	0.1669E-02	0.7083E-03		0.8886E-04
1.47	0.1194E-02	0.8753E-03	0.3458E-03		0.5016E-04
1.72	0.7107E-03	0.6284E-03	0.1578E-03		0.2076E-04
1.97	0.6962E-03	0.6659E-03	0.1333E-03		0.3136E-04
2.21	0.3148E-03	0.2577E-03	0.4644E-04		0.1001E-04
2.46	0.2180E-03	0.1316E-03	0.4161E-04		0.1298E-04
2.70	0.9147E-04	0.6111E-04	0.1028E-04		0.1771E-05
2.95	0.1456E-03	0.8161E-04	0.2142E-04		0.1096E-04
3.19	0.1176E-03	0.4331E-04	0.4140E-05		0.5557E-05
3.44	0.1078E-03	0.6045E-04	0.1674E-04		0.7403E-05
3.68	0.4108E-04	0.3108E-04	0.1760E-05		0.1045E-05
3.93	0.6042E-04	0.5056E-04	0.1049E-04		0.4712E-05
4.17	0.3733E-04	0.2845E-04	-0.3603E-06		0.1216E-05
4.42	0.5876E-04	0.4842E-04	0.8543E-05		0.4298E-05
4.67	0.4075E-04	0.3858E-04	0.1706E-05		0.1176E-05
4.91	0.7844E-04	0.7239E-04	0.8964E-05		0.4564E-05
5.16	0.6470E-04	0.5951E-04	0.1236E-05		0.1824E-05
5.40	0.5550E-04	0.4964E-04	0.6191E-05		0.3313E-05
5.65	0.4102E-04	0.3077E-04	0.1310E-05		0.1371E-05
5.89	0.5435E-04	0.4121E-04	0.7337E-05		0.3600E-05
6.14	0.3955E-04	0.3743E-04	0.1572E-05		0.1637E-05
6.38	0.4735E-04	0.4679E-04	0.5174E-05		0.3532E-05
6.63	0.3770E-04	0.4057E-04	0.9721E-06		0.2419E-05
6.88	0.5188E-04	0.3908E-04	0.5673E-05		0.3863E-05
7.12	0.4121E-04	0.2658E-04	0.2556E-05		0.2126E-05
7.37	0.5164E-04	0.3440E-04	0.5459E-05		0.3217E-05

TABLE 6.21
ACCELERATION VARIANCE SPECTRAL DENSITY
2.9 ft Significant Wave Height
13.7% Beam
 $C_v = 1.616$
42.90 ft LCG
Speed = 25 knots

Runs 237, 241

Accelerometer	#5	#4	#3	#2	#1
Frequency Hz	Spectral Estimates g^2/Hz				
0.00	0.2939E-02	0.2275E-02	0.1225E-02	0.6056E-03	0.6172E-03
0.25	0.1700E-01	0.1264E-01	0.6559E-02	0.3504E-02	0.4390E-02
0.49	0.3179E-01	0.2280E-01	0.1111E-01	0.5446E-02	0.7960E-02
0.74	0.1730E-01	0.1198E-01	0.5429E-02	0.2190E-02	0.3445E-02
0.98	0.6145E-02	0.4330E-02	0.1887E-02	0.5595E-03	0.4495E-03
1.23	0.3976E-02	0.2885E-02	0.1205E-02	0.3203E-03	0.2451E-03
1.47	0.2062E-02	0.1510E-02	0.6143E-03	0.1760E-03	0.1079E-03
1.72	0.1128E-02	0.8491E-03	0.2785E-03	0.8420E-04	0.4935E-04
1.97	0.9192E-03	0.7618E-03	0.1758E-03	0.6404E-04	0.3769E-04
2.21	0.4640E-03	0.3794E-03	0.8095E-04	0.2653E-04	0.2371E-04
2.46	0.2232E-03	0.1471E-03	0.4661E-04	0.2050E-04	0.1664E-04
2.70	0.1449E-03	0.8815E-04	0.1967E-04	0.1243E-04	0.9764E-05
2.95	0.1011E-03	0.7880E-04	0.2060E-04	0.1491E-04	0.9255E-05
3.19	0.6512E-04	0.7217E-04	0.1062E-04	0.6344E-05	0.6678E-05
3.44	0.7202E-04	0.8280E-04	0.1411E-04	0.1252E-04	0.7799E-05
3.68	0.5499E-04	0.6530E-04	0.8429E-05	0.1082E-04	0.4830E-05
3.93	0.5691E-04	0.6143E-04	0.1104E-04	0.1385E-04	0.4816E-05
4.17	0.4956E-04	0.5287E-04	0.6641E-05	0.7282E-05	0.3458E-05
4.42	0.3963E-04	0.5164E-04	0.9503E-05	0.7200E-05	0.4151E-05
4.67	0.3627E-04	0.4541E-04	0.4547E-05	0.4293E-05	0.3635E-05
4.91	0.5622E-04	0.6609E-04	0.7658E-05	0.5779E-05	0.4625E-05
5.16	0.6638E-04	0.6856E-04	0.5557E-05	0.4251E-05	0.3772E-05
5.40	0.5275E-04	0.5335E-04	0.5495E-05	0.6776E-05	0.3584E-05
5.65	0.3756E-04	0.4531E-04	0.1995E-05	0.1110E-04	0.2928E-05
5.89	0.3850E-04	0.4329E-04	0.4687E-05	0.2832E-04	0.3217E-05
6.14	0.3400E-04	0.3939E-04	0.3166E-05	0.3024E-04	0.3019E-05
6.38	0.3899E-04	0.4038E-04	0.4652E-05	0.2205E-04	0.4112E-05
6.63	0.4122E-04	0.4607E-04	0.2402E-05	0.1768E-04	0.3780E-05
6.88	0.4837E-04	0.5005E-04	0.4264E-05	0.1118E-03	0.4336E-05
7.12	0.5110E-04	0.4662E-04	0.4073E-05	0.3845E-03	0.4825E-05
7.37	0.4464E-04	0.4773E-04	0.5784E-05	0.3236E-03	0.5167E-05

TABLE 6.22
ACCELERATION VARIANCE SPECTRAL DENSITY
2.9 ft Significant Wave Height
13.7% Beam
 $C_v = 1.939$
42.90 ft LCG
Speed = 30 knots

Runs 242, 243

Accelerometer	#5	#4	#3	#2	#1
Frequency Hz	Spectral Estimates g^2/Hz				
0.00	0.1400E-02	0.1080E-02	0.6331E-03	0.3835E-03	0.3026E-03
0.25	0.1145E-01	0.8420E-02	0.4433E-02	0.2513E-02	0.3013E-02
0.49	0.3062E-01	0.2183E-01	0.1037E-01	0.4895E-02	0.6938E-02
0.74	0.2574E-01	0.1814E-01	0.7983E-02	0.2834E-02	0.4072E-02
0.98	0.1313E-01	0.9448E-02	0.4280E-02	0.1278E-02	0.9337E-03
1.23	0.8595E-02	0.6188E-02	0.2829E-02	0.8587E-03	0.5776E-03
1.47	0.4715E-02	0.3299E-02	0.1436E-02	0.3746E-03	0.2766E-03
1.72	0.2724E-02	0.1810E-02	0.7445E-03	0.1863E-03	0.1213E-03
1.97	0.1765E-02	0.1237E-02	0.4307E-03	0.1150E-03	0.7392E-04
2.21	0.9033E-03	0.6256E-03	0.2202E-03	0.6116E-04	0.4376E-04
2.46	0.4762E-03	0.2697E-03	0.1155E-03	0.3643E-04	0.1908E-04
2.70	0.2917E-03	0.1561E-03	0.5896E-04	0.2185E-04	0.1553E-04
2.95	0.1449E-03	0.8197E-04	0.2612E-04	0.1011E-04	0.6764E-05
3.19	0.1213E-03	0.9021E-04	0.2549E-04	0.7281E-05	0.1038E-04
3.44	0.1072E-03	0.8286E-04	0.2238E-04	0.7581E-05	0.4488E-05
3.68	0.1049E-03	0.8170E-04	0.2115E-04	0.9622E-05	0.5588E-05
3.93	0.5215E-04	0.4842E-04	0.1266E-04	0.9446E-05	0.2654E-05
4.17	0.6626E-04	0.5491E-04	0.1354E-04	0.1345E-04	0.5448E-05
4.42	0.5840E-04	0.4428E-04	0.9437E-05	0.1241E-04	0.2879E-05
4.67	0.5676E-04	0.4786E-04	0.8748E-05	0.1330E-04	0.4697E-05
4.91	0.3896E-04	0.5012E-04	0.5500E-05	0.1141E-04	0.2133E-05
5.16	0.5573E-04	0.6416E-04	0.7301E-05	0.9349E-05	0.3641E-05
5.40	0.3643E-04	0.4108E-04	0.4163E-05	0.1293E-04	0.1972E-05
5.65	0.3670E-04	0.3747E-04	0.5070E-05	0.1690E-04	0.3226E-05
5.89	0.3033E-04	0.2825E-04	0.2773E-05	0.1334E-04	0.2019E-05
6.14	0.3443E-04	0.3431E-04	0.3759E-05	0.1739E-04	0.3344E-05
6.38	0.2658E-04	0.3177E-04	0.2251E-05	0.2333E-04	0.2150E-05
6.63	0.4006E-04	0.3139E-04	0.3474E-05	0.3340E-04	0.3266E-05
6.88	0.3757E-04	0.2167E-04	0.1977E-05	0.6255E-04	0.2210E-05
7.12	0.4300E-04	0.2523E-04	0.3465E-05	0.1156E-03	0.3209E-05
7.37	0.3696E-04	0.2618E-04	0.2845E-05	0.1117E-03	0.2474E-05

TABLE 6.23
ACCELERATION VARIANCE SPECTRAL DENSITY
2.9 ft Significant Wave Height
13.7% Beam
 $C_v = 2.263$
42.90 ft LCG
Speed = 35 knots

Runs 244, 245

Accelerometer	#5	#4	#3	#2	#1
Frequency Hz	Spectral Estimates g^2/Hz				
0.00	0.7140E-03	0.5858E-03	0.3846E-03	0.2473E-03	0.1890E-03
0.25	0.1011E-01	0.7496E-02	0.4101E-02	0.2314E-02	0.2461E-02
0.49	0.3480E-01	0.2543E-01	0.1244E-01	0.5682E-02	0.6544E-02
0.74	0.3977E-01	0.2874E-01	0.1311E-01	0.4533E-02	0.4821E-02
0.98	0.2346E-01	0.1707E-01	0.7850E-02	0.2339E-02	0.1394E-02
1.23	0.1308E-01	0.9752E-02	0.4497E-02	0.1448E-02	0.7749E-03
1.47	0.8836E-02	0.6436E-02	0.2819E-02	0.7944E-03	0.5672E-03
1.72	0.6369E-02	0.4471E-02	0.1960E-02	0.4916E-03	0.2929E-03
1.97	0.3683E-02	0.2553E-02	0.1062E-02	0.2824E-03	0.1417E-03
2.21	0.1758E-02	0.1138E-02	0.4883E-03	0.1350E-03	0.6854E-04
2.46	0.9530E-03	0.5884E-03	0.2581E-03	0.7167E-04	0.3158E-04
2.70	0.6275E-03	0.4227E-03	0.1709E-03	0.6257E-04	0.2890E-04
2.95	0.2965E-03	0.1948E-03	0.7870E-04	0.3566E-04	0.1326E-04
3.19	0.1774E-03	0.1482E-03	0.4279E-04	0.1827E-04	0.9919E-05
3.44	0.1192E-03	0.1124E-03	0.2130E-04	0.1210E-04	0.4302E-05
3.68	0.1095E-03	0.1007E-03	0.2214E-04	0.1268E-04	0.6417E-05
3.93	0.7700E-04	0.8881E-04	0.1423E-04	0.1403E-04	0.2090E-05
4.17	0.9096E-04	0.9115E-04	0.2002E-04	0.1284E-04	0.4492E-05
4.42	0.9198E-04	0.8084E-04	0.1772E-04	0.1159E-04	0.2207E-05
4.67	0.1012E-03	0.9071E-04	0.2106E-04	0.1417E-04	0.4162E-05
4.91	0.8376E-04	0.8161E-04	0.1354E-04	0.1778E-04	0.2204E-05
5.16	0.9848E-04	0.8875E-04	0.1413E-04	0.2099E-04	0.4317E-05
5.40	0.7142E-04	0.5751E-04	0.7594E-05	0.3309E-04	0.3585E-05
5.65	0.6100E-04	0.5120E-04	0.8391E-05	0.3570E-04	0.4640E-05
5.89	0.5406E-04	0.4326E-04	0.5840E-05	0.2931E-04	0.2879E-05
6.14	0.6400E-04	0.4992E-04	0.8549E-05	0.3609E-04	0.4227E-05
6.38	0.6384E-04	0.4757E-04	0.3767E-05	0.4345E-04	0.2628E-05
6.63	0.7220E-04	0.5706E-04	0.4657E-05	0.4877E-04	0.3880E-05
6.88	0.5795E-04	0.5274E-04	0.2673E-05	0.4909E-04	0.3306E-05
7.12	0.5584E-04	0.5468E-04	0.5892E-05	0.5480E-04	0.3884E-05
7.37	0.5591E-04	0.4996E-04	0.4750E-05	0.1082E-03	0.2483E-05

TABLE 6.24
ACCELERATION VARIANCE SPECTRAL DENSITY
4.6 ft Significant Wave Height
21.7% Beam
 $C_v = 0.646$
42.90 ft LCG
Speed = 10 knots

Run 246

Accelerometer	#5	#4	#3	#2	#1
Frequency Hz	Spectral Estimates g^2/Hz				
0.00	0.3662E-01	0.2531E-01	0.1028E-01	0.3658E-02	0.7192E-02
0.25	0.7970E-01	0.5447E-01	0.2136E-01	0.5708E-02	0.1127E-01
0.49	0.6593E-01	0.4499E-01	0.1745E-01	0.3897E-02	0.7243E-02
0.74	0.1139E-01	0.7921E-02	0.3143E-02	0.6240E-03	0.7191E-03
0.98	0.1863E-02	0.1364E-02	0.5717E-03	0.1268E-03	0.4188E-04
1.23	0.8605E-03	0.6370E-03	0.2429E-03	0.4966E-04	0.3533E-04
1.47	0.5637E-03	0.4161E-03	0.1546E-03	0.3756E-04	0.2348E-04
1.72	0.2650E-03	0.2711E-03	0.5714E-04	0.2345E-04	0.4365E-05
1.97	0.4648E-03	0.4884E-03	0.9554E-04	0.3223E-04	0.2593E-04
2.21	0.9681E-04	0.1295E-03	0.1080E-04	0.1014E-04	0.1297E-05
2.46	0.2052E-03	0.1303E-03	0.3347E-04	0.1318E-04	0.1192E-04
2.70	0.3491E-04	0.1603E-04	-0.7974E-05	0.5546E-05	-0.5828E-06
2.95	0.1122E-03	0.9015E-04	0.2165E-04	0.8635E-05	0.8185E-05
3.19	-0.4065E-05	0.1886E-04	-0.6828E-05	0.1025E-05	-0.5073E-06
3.44	0.1061E-03	0.8744E-04	0.1806E-04	0.6985E-05	0.8387E-05
3.68	0.1771E-04	0.2878E-04	-0.4582E-05	0.1988E-05	0.3586E-06
3.93	0.8478E-04	0.7026E-04	0.1342E-04	0.5868E-05	0.5621E-05
4.17	0.3748E-05	0.1704E-04	-0.4980E-05	0.1243E-05	-0.4583E-06
4.42	0.6310E-04	0.6047E-04	0.1112E-04	0.4903E-05	0.4546E-05
4.67	0.1677E-04	0.2143E-04	-0.2646E-05	0.1159E-05	-0.3137E-07
4.91	0.7661E-04	0.6278E-04	0.1025E-04	0.5216E-05	0.4405E-05
5.16	0.3003E-04	0.3099E-04	-0.1584E-05	0.2134E-05	0.4844E-06
5.40	0.6621E-04	0.4723E-04	0.8489E-05	0.7168E-05	0.4029E-05
5.65	0.1958E-04	0.1731E-04	-0.1919E-05	0.5369E-05	0.7438E-06
5.89	0.5185E-04	0.3983E-04	0.7021E-05	0.8999E-05	0.3609E-05
6.14	0.1571E-04	0.1425E-04	-0.1630E-05	0.1183E-04	0.7601E-06
6.38	0.4840E-04	0.3570E-04	0.6852E-05	0.2437E-04	0.3412E-05
6.63	0.2212E-04	0.1457E-04	-0.1415E-05	0.1846E-04	0.9988E-06
6.88	0.5065E-04	0.3669E-04	0.5733E-05	0.4016E-04	0.4149E-05
7.12	0.2016E-04	0.2394E-04	-0.5998E-06	0.7605E-04	0.2202E-05
7.37	0.4126E-04	0.4056E-04	0.5680E-05	0.7236E-04	0.3995E-05

TABLE 6.25
ACCELERATION VARIANCE SPECTRAL DENSITY
4.6 ft Significant Wave Height
21.7% Beam
 $C_v = 0.970$
42.90 ft LCG
Speed = 15 knots

Runs 247, 248

Accelerometer	#5	#4	#3	#2	#1
Frequency Hz	Spectral Estimates g^2/Hz				
0.00	0.4906E-01	0.3521E-01	0.1673E-01	0.6992E-02	0.7589E-02
0.25	0.1279E+00	0.9117E-01	0.4226E-01	0.1631E-01	0.1735E-01
0.49	0.1229E+00	0.8720E-01	0.3970E-01	0.1454E-01	0.1551E-01
0.74	0.3078E-01	0.2188E-01	0.9636E-02	0.3053E-02	0.2757E-02
0.98	0.8880E-02	0.6442E-02	0.2796E-02	0.7022E-03	0.8355E-04
1.23	0.3614E-02	0.2574E-02	0.1100E-02	0.2890E-03	0.9780E-04
1.47	0.1805E-02	0.1300E-02	0.5404E-03	0.1429E-03	0.7006E-04
1.72	0.7924E-03	0.5758E-03	0.2220E-03	0.4574E-04	0.6451E-05
1.97	0.8224E-03	0.6308E-03	0.2443E-03	0.6921E-04	0.4258E-04
2.21	0.2079E-03	0.1765E-03	0.4732E-04	0.1013E-04	-0.4480E-05
2.46	0.4271E-03	0.3061E-03	0.1143E-03	0.4328E-04	0.2832E-04
2.70	0.7174E-04	0.6049E-04	0.3056E-05	0.9047E-05	-0.1657E-05
2.95	0.2282E-03	0.1844E-03	0.6537E-04	0.2690E-04	0.2007E-04
3.19	-0.9940E-05	0.9447E-05	-0.1210E-04	-0.2453E-05	-0.3808E-05
3.44	0.1902E-03	0.1402E-03	0.4795E-04	0.1938E-04	0.1610E-04
3.68	-0.6782E-05	0.4921E-05	-0.8990E-05	-0.1379E-05	-0.2570E-05
3.93	0.1100E-03	0.9313E-04	0.3462E-04	0.1452E-04	0.1185E-04
4.17	-0.2212E-04	-0.6584E-05	-0.1023E-04	0.1357E-05	-0.2164E-05
4.42	0.1038E-03	0.8092E-04	0.2741E-04	0.1614E-04	0.1004E-04
4.67	-0.1261E-05	0.4702E-05	-0.9288E-05	0.2095E-05	-0.1995E-05
4.91	0.1023E-03	0.7645E-04	0.2117E-04	0.1261E-04	0.8217E-05
5.16	0.1573E-04	0.1567E-04	-0.8452E-05	0.1464E-05	-0.9384E-06
5.40	0.7811E-04	0.6943E-04	0.1811E-04	0.1130E-04	0.7936E-05
5.65	-0.4100E-05	0.1234E-04	-0.8030E-05	0.3130E-05	-0.3602E-06
5.89	0.6886E-04	0.5927E-04	0.1489E-04	0.1354E-04	0.6470E-05
6.14	-0.2383E-05	0.9452E-05	-0.6892E-05	0.6249E-05	-0.6739E-06
6.38	0.5703E-04	0.5473E-04	0.1322E-04	0.1408E-04	0.5980E-05
6.63	0.1894E-05	0.1331E-04	-0.6339E-05	0.8416E-05	-0.8743E-07
6.88	0.6042E-04	0.5578E-04	0.1201E-04	0.2077E-04	0.6032E-05
7.12	0.6273E-05	0.1536E-04	-0.4513E-05	0.2933E-04	0.6540E-06
7.37	0.5468E-04	0.4757E-04	0.1113E-04	0.4192E-04	0.6287E-05

TABLE 6.26
ACCELERATION VARIANCE SPECTRAL DENSITY
4.6 ft Significant Wave Height
21.7% Beam
 $C_v = 1.293$
42.90 ft LCG
Speed = 20 knots

Runs 263, 264

Accelerometer	#5	#4	#3	#2	#1
Frequency Hz	Spectral Estimates g^2/Hz				
0.00	0.4152E-01	0.3141E-01	0.1714E-01	0.7136E-02	0.8473E-02
0.25	0.1321E+00	0.9873E-01	0.5192E-01	0.2082E-01	0.2684E-01
0.49	0.1486E+00	0.1095E+00	0.5544E-01	0.2122E-01	0.2967E-01
0.74	0.4810E-01	0.3429E-01	0.1600E-01	0.4939E-02	0.6937E-02
0.98	0.1823E-01	0.1270E-01	0.5577E-02	0.9994E-03	0.2111E-03
1.23	0.1031E-01	0.7187E-02	0.3255E-02	0.6362E-03	0.1966E-03
1.47	0.5605E-02	0.3885E-02	0.1820E-02	0.3836E-03	0.1249E-03
1.72	0.3301E-02	0.2281E-02	0.9962E-03	0.1874E-03	0.1513E-04
1.97	0.2754E-02	0.1816E-02	0.7398E-03	0.1860E-03	0.8606E-04
2.21	0.1552E-02	0.1027E-02	0.3772E-03	0.7939E-04	0.6484E-05
2.46	0.1158E-02	0.8503E-03	0.3477E-03	0.9522E-04	0.5771E-04
2.70	0.5904E-03	0.3808E-03	0.1451E-03	0.3265E-04	-0.5021E-05
2.95	0.5823E-03	0.4054E-03	0.1760E-03	0.5628E-04	0.3392E-04
3.19	0.1960E-03	0.1411E-03	0.5073E-04	0.1025E-04	-0.9326E-05
3.44	0.2933E-03	0.2115E-03	0.1014E-03	0.3023E-04	0.2418E-04
3.68	0.9004E-04	0.6496E-04	0.2071E-04	-0.8663E-06	-0.7938E-05
3.93	0.1999E-03	0.1573E-03	0.6612E-04	0.2362E-04	0.1830E-04
4.17	0.5439E-04	0.6456E-04	0.6414E-05	0.3482E-05	-0.7191E-05
4.42	0.1621E-03	0.1405E-03	0.4788E-04	0.2173E-04	0.1444E-04
4.67	0.3409E-04	0.3703E-04	0.1571E-05	0.3078E-05	-0.5898E-05
4.91	0.1148E-03	0.1049E-03	0.3500E-04	0.1739E-04	0.1269E-04
5.16	0.1620E-04	0.2794E-04	-0.5262E-05	0.2306E-05	-0.4269E-05
5.40	0.8972E-04	0.7912E-04	0.2423E-04	0.1969E-04	0.1072E-04
5.65	0.1690E-04	0.1427E-04	-0.7142E-05	0.1496E-04	-0.4058E-05
5.89	0.8579E-04	0.6538E-04	0.1993E-04	0.2725E-04	0.8896E-05
6.14	0.1330E-04	0.1988E-04	-0.7165E-05	0.1596E-04	-0.3331E-05
6.38	0.6858E-04	0.6444E-04	0.1595E-04	0.3349E-04	0.8520E-05
6.63	0.1163E-04	0.1907E-04	-0.7739E-05	0.1740E-04	-0.2763E-05
6.88	0.6610E-04	0.6130E-04	0.1352E-04	0.2224E-04	0.7554E-05
7.12	0.1466E-04	0.2966E-04	-0.7508E-05	0.1283E-04	-0.2040E-05
7.37	0.6199E-04	0.7027E-04	0.1174E-04	0.2745E-04	0.7215E-05

TABLE 6.27
ACCELERATION VARIANCE SPECTRAL DENSITY
4.6 ft Significant Wave Height
21.7% Beam
 $C_v = 1.616$
42.90 ft LCG
Speed = 25 knots

Runs 265, 267

Accelerometer	#5	#4	#3	#2	#1
Frequency Hz	Spectral Estimates g^2/Hz				
0.00	0.3037E-01	0.2361E-01	0.1436E-01	0.4984E-02	0.8737E-02
0.25	0.1277E+00	0.9643E-01	0.5521E-01	0.1807E-01	0.3566E-01
0.49	0.1755E+00	0.1293E+00	0.6962E-01	0.2118E-01	0.4566E-01
0.74	0.7370E-01	0.5229E-01	0.2507E-01	0.5911E-02	0.1296E-01
0.98	0.2899E-01	0.2035E-01	0.8883E-02	0.1174E-02	0.6419E-03
1.23	0.1808E-01	0.1277E-01	0.5657E-02	0.7868E-03	0.4554E-03
1.47	0.1086E-01	0.7655E-02	0.3466E-02	0.4964E-03	0.2432E-03
1.72	0.6744E-02	0.4740E-02	0.2087E-02	0.2663E-03	0.6365E-04
1.97	0.4823E-02	0.3425E-02	0.1452E-02	0.2247E-03	0.1334E-03
2.21	0.2904E-02	0.2105E-02	0.8211E-03	0.1150E-03	0.1149E-04
2.46	0.2113E-02	0.1533E-02	0.6636E-03	0.1227E-03	0.7348E-04
2.70	0.1147E-02	0.8413E-03	0.3454E-03	0.5444E-04	-0.7993E-05
2.95	0.9031E-03	0.7082E-03	0.3192E-03	0.6522E-04	0.4276E-04
3.19	0.4438E-03	0.3541E-03	0.1399E-03	0.1788E-04	-0.1381E-04
3.44	0.4838E-03	0.3480E-03	0.1657E-03	0.3716E-04	0.2773E-04
3.68	0.2677E-03	0.1732E-03	0.5897E-04	0.1120E-04	-0.1288E-04
3.93	0.3160E-03	0.2340E-03	0.9461E-04	0.3129E-04	0.2145E-04
4.17	0.1258E-03	0.1008E-03	0.2307E-04	0.7829E-05	-0.1090E-04
4.42	0.1935E-03	0.1485E-03	0.6687E-04	0.2331E-04	0.1724E-04
4.67	0.7667E-04	0.6529E-04	0.1560E-04	0.7527E-05	-0.8018E-05
4.91	0.1463E-03	0.1168E-03	0.4837E-04	0.1867E-04	0.1518E-04
5.16	0.4406E-04	0.3854E-04	0.9041E-06	0.3808E-05	-0.7414E-05
5.40	0.9384E-04	0.8921E-04	0.3108E-04	0.1750E-04	0.1226E-04
5.65	0.1861E-04	0.2422E-04	-0.3866E-05	0.7553E-05	-0.6266E-05
5.89	0.8654E-04	0.6225E-04	0.2379E-04	0.2241E-04	0.1126E-04
6.14	0.2276E-04	0.1569E-04	-0.6118E-05	0.1318E-04	-0.4274E-05
6.38	0.7485E-04	0.6090E-04	0.1991E-04	0.2125E-04	0.1062E-04
6.63	0.2105E-04	0.2302E-04	-0.5292E-05	0.1571E-04	-0.2907E-05
6.88	0.6418E-04	0.5551E-04	0.1705E-04	0.4609E-04	0.1161E-04
7.12	0.1327E-04	0.1652E-04	-0.5276E-05	0.8347E-04	-0.1418E-05
7.37	0.5922E-04	0.5313E-04	0.1533E-04	0.9935E-04	0.1053E-04

TABLE 6.28
ACCELERATION VARIANCE SPECTRAL DENSITY
4.6 ft Significant Wave Height
21.7% Beam
 $C_v = 1.939$
42.90 ft LCG
Speed = 30 knots

Runs 271, 272, 273

Accelerometer	#5	#4	#3	#2	#1
Frequency Hz	Spectral Estimates g^2/Hz				
0.00	0.2015E-01	0.1598E-01	0.9697E-02	0.4528E-02	0.5943E-02
0.25	0.9888E-01	0.7573E-01	0.4333E-01	0.1950E-01	0.2981E-01
0.49	0.1688E+00	0.1257E+00	0.6677E-01	0.2745E-01	0.4612E-01
0.74	0.8940E-01	0.6438E-01	0.3068E-01	0.9941E-02	0.1744E-01
0.98	0.3434E-01	0.2427E-01	0.1073E-01	0.2088E-02	0.1599E-02
1.23	0.2174E-01	0.1529E-01	0.6942E-02	0.1362E-02	0.8136E-03
1.47	0.1268E-01	0.9005E-02	0.4112E-02	0.8198E-03	0.4434E-03
1.72	0.8472E-02	0.6097E-02	0.2671E-02	0.5147E-03	0.2257E-03
1.97	0.5767E-02	0.4307E-02	0.1785E-02	0.3710E-03	0.1920E-03
2.21	0.3424E-02	0.2572E-02	0.1026E-02	0.1979E-03	0.9171E-04
2.46	0.2226E-02	0.1638E-02	0.7370E-03	0.1772E-03	0.9227E-04
2.70	0.1372E-02	0.9295E-03	0.4106E-03	0.8804E-04	0.3571E-04
2.95	0.1081E-02	0.6308E-03	0.3018E-03	0.8177E-04	0.4666E-04
3.19	0.6151E-03	0.3757E-03	0.1564E-03	0.3903E-04	0.1512E-04
3.44	0.4011E-03	0.3072E-03	0.1439E-03	0.4764E-04	0.2695E-04
3.68	0.2478E-03	0.1873E-03	0.6902E-04	0.1966E-04	0.5466E-05
3.93	0.2367E-03	0.1667E-03	0.7351E-04	0.3143E-04	0.2030E-04
4.17	0.1647E-03	0.1032E-03	0.3350E-04	0.1532E-04	0.5058E-05
4.42	0.1746E-03	0.1316E-03	0.5108E-04	0.2575E-04	0.1638E-04
4.67	0.1122E-03	0.9680E-04	0.2833E-04	0.1284E-04	0.4021E-05
4.91	0.1190E-03	0.9868E-04	0.4336E-04	0.2489E-04	0.1374E-04
5.16	0.7623E-04	0.7312E-04	0.1781E-04	0.1720E-04	0.2973E-05
5.40	0.8722E-04	0.1067E-03	0.2820E-04	0.3084E-04	0.1240E-04
5.65	0.6381E-04	0.7778E-04	0.8677E-05	0.2541E-04	0.3578E-05
5.89	0.6654E-04	0.7776E-04	0.1942E-04	0.2641E-04	0.1115E-04
6.14	0.3325E-04	0.5031E-04	0.5237E-05	0.1787E-04	0.3723E-05
6.38	0.5278E-04	0.5640E-04	0.1533E-04	0.2794E-04	0.1043E-04
6.63	0.4316E-04	0.3915E-04	0.2185E-05	0.3292E-04	0.3690E-05
6.88	0.5837E-04	0.5215E-04	0.1166E-04	0.5728E-04	0.1033E-04
7.12	0.4117E-04	0.4344E-04	0.1272E-05	0.9295E-04	0.4917E-05
7.37	0.6633E-04	0.6176E-04	0.1060E-04	0.9973E-04	0.1096E-04

TABLE 6.29
ACCELERATION VARIANCE SPECTRAL DENSITY
10.7 ft Significant Wave Height
50.5% Beam
 $C_v = 0.646$
42.90 ft LCG
Speed = 10 knots

Runs 274, 275

Accelerometer	#5	#4	#3	#2	#1
Frequency Hz	Spectral Estimates g^2/Hz				
0.00	0.1291E+00	0.9228E-01	0.4356E-01	0.1683E-01	0.3808E-01
0.25	0.2011E+00	0.1409E+00	0.6089E-01	0.1824E-01	0.4374E-01
0.49	0.1372E+00	0.9498E-01	0.3899E-01	0.8978E-02	0.2140E-01
0.74	0.2428E-01	0.1679E-01	0.7015E-02	0.1227E-02	0.1496E-02
0.98	0.7592E-02	0.5314E-02	0.2385E-02	0.4555E-03	0.1851E-03
1.23	0.3821E-02	0.2678E-02	0.1188E-02	0.2233E-03	0.1313E-03
1.47	0.2499E-02	0.1726E-02	0.7711E-03	0.1418E-03	0.8949E-04
1.72	0.1561E-02	0.1134E-02	0.4829E-03	0.1024E-03	0.5198E-04
1.97	0.1558E-02	0.1275E-02	0.4304E-03	0.9246E-04	0.6599E-04
2.21	0.8136E-03	0.7056E-03	0.2419E-03	0.6935E-04	0.3706E-04
2.46	0.7074E-03	0.5497E-03	0.2130E-03	0.5930E-04	0.4202E-04
2.70	0.3467E-03	0.2756E-03	0.1172E-03	0.3808E-04	0.1871E-04
2.95	0.4795E-03	0.3243E-03	0.1337E-03	0.3310E-04	0.2855E-04
3.19	0.2330E-03	0.1661E-03	0.6847E-04	0.2297E-04	0.1329E-04
3.44	0.2909E-03	0.2245E-03	0.8876E-04	0.2042E-04	0.1931E-04
3.68	0.1196E-03	0.9758E-04	0.4788E-04	0.1674E-04	0.9933E-05
3.93	0.2029E-03	0.1462E-03	0.6408E-04	0.1690E-04	0.1585E-04
4.17	0.8641E-04	0.6932E-04	0.2903E-04	0.1222E-04	0.7288E-05
4.42	0.1604E-03	0.1281E-03	0.4770E-04	0.1329E-04	0.1156E-04
4.67	0.6218E-04	0.6013E-04	0.2236E-04	0.1161E-04	0.5433E-05
4.91	0.1236E-03	0.1021E-03	0.3625E-04	0.1216E-04	0.9471E-05
5.16	0.4053E-04	0.5123E-04	0.1599E-04	0.1110E-04	0.5047E-05
5.40	0.9384E-04	0.8405E-04	0.2623E-04	0.1220E-04	0.8818E-05
5.65	0.2865E-04	0.3599E-04	0.7961E-05	0.1088E-04	0.3645E-05
5.89	0.7922E-04	0.7061E-04	0.1919E-04	0.1184E-04	0.6631E-05
6.14	0.2343E-04	0.3357E-04	0.4578E-05	0.1171E-04	0.3468E-05
6.38	0.7082E-04	0.6396E-04	0.1508E-04	0.1486E-04	0.6338E-05
6.63	0.2282E-04	0.2933E-04	0.3154E-05	0.1675E-04	0.3274E-05
6.88	0.5969E-04	0.5566E-04	0.1290E-04	0.2074E-04	0.6256E-05
7.12	0.2026E-04	0.2781E-04	0.2598E-05	0.2561E-04	0.3485E-05
7.37	0.6402E-04	0.5108E-04	0.1210E-04	0.3501E-04	0.5511E-05

TABLE 6.30
ACCELERATION VARIANCE SPECTRAL DENSITY
10.7 ft Significant Wave Height
50.5% Beam
 $C_v = 0.970$
42.90 ft LCG
Speed = 15 knots

Runs 276, 277, 278

Accelerometer	#5	#4	#3	#2	#1
Frequency Hz	Spectral Estimates g^2/Hz				
0.00	0.1822E+00	0.1369E+00	0.7503E-01	0.3188E-01	0.4971E-01
0.25	0.3249E+00	0.2390E+00	0.1229E+00	0.4560E-01	0.6990E-01
0.49	0.2536E+00	0.1835E+00	0.8998E-01	0.2951E-01	0.4447E-01
0.74	0.6448E-01	0.4552E-01	0.2090E-01	0.5091E-02	0.5915E-02
0.98	0.2834E-01	0.2000E-01	0.9140E-02	0.1790E-02	0.6939E-03
1.23	0.1677E-01	0.1187E-01	0.5400E-02	0.1067E-02	0.5460E-03
1.47	0.1208E-01	0.8558E-02	0.3921E-02	0.7762E-03	0.3955E-03
1.72	0.8239E-02	0.6034E-02	0.2814E-02	0.5721E-03	0.2268E-03
1.97	0.7062E-02	0.5468E-02	0.2490E-02	0.5484E-03	0.2822E-03
2.21	0.4947E-02	0.3777E-02	0.1767E-02	0.4074E-03	0.1716E-03
2.46	0.4188E-02	0.3051E-02	0.1522E-02	0.3810E-03	0.1871E-03
2.70	0.2933E-02	0.2061E-02	0.1093E-02	0.2805E-03	0.9940E-04
2.95	0.2766E-02	0.1924E-02	0.9881E-03	0.2775E-03	0.1348E-03
3.19	0.1938E-02	0.1335E-02	0.6710E-03	0.2064E-03	0.6759E-04
3.44	0.1859E-02	0.1295E-02	0.6371E-03	0.1969E-03	0.7225E-04
3.68	0.1278E-02	0.8988E-03	0.4327E-03	0.1499E-03	0.1958E-04
3.93	0.1234E-02	0.8749E-03	0.4184E-03	0.1545E-03	0.3710E-04
4.17	0.7894E-03	0.5307E-03	0.2727E-03	0.1195E-03	0.3713E-05
4.42	0.8015E-03	0.5565E-03	0.2757E-03	0.1293E-03	0.2445E-04
4.67	0.4739E-03	0.3472E-03	0.1609E-03	0.9224E-04	0.5921E-06
4.91	0.5137E-03	0.3847E-03	0.1727E-03	0.8564E-04	0.1763E-04
5.16	0.2898E-03	0.2225E-03	0.9280E-04	0.6505E-04	-0.6406E-06
5.40	0.3521E-03	0.2562E-03	0.1134E-03	0.7747E-04	0.1534E-04
5.65	0.1738E-03	0.1262E-03	0.5027E-04	0.6930E-04	0.6423E-07
5.89	0.2549E-03	0.1859E-03	0.7379E-04	0.8065E-04	0.1506E-04
6.14	0.1130E-03	0.8637E-04	0.2414E-04	0.7215E-04	0.2479E-05
6.38	0.1840E-03	0.1430E-03	0.5195E-04	0.1015E-03	0.1619E-04
6.63	0.6932E-04	0.6670E-04	0.1607E-04	0.1435E-03	0.7305E-05
6.88	0.1598E-03	0.1284E-03	0.4451E-04	0.2104E-03	0.2111E-04
7.12	0.8771E-04	0.6310E-04	0.1617E-04	0.2817E-03	0.1454E-04
7.37	0.1648E-03	0.1100E-03	0.3921E-04	0.3346E-03	0.2598E-04

TABLE 6.31
ACCELERATION VARIANCE SPECTRAL DENSITY
10.7 ft Significant Wave Height
50.5% Beam
 $C_y = 1.293$
42.90 ft LCG
Speed = 20 knots

Runs 290, 291, 292

Accelerometer	#5	#4	#3	#2	#1
Frequency Hz	Spectral Estimates g^2/Hz				
0.00	0.2079E+00	0.3255E+00	0.9943E-01	0.6503E-01	0.5996E-01
0.25	0.4160E+00	0.3899E+00	0.1844E+00	0.1124E+00	0.1055E+00
0.49	0.3607E+00	0.2734E+00	0.1484E+00	0.8392E-01	0.8121E-01
0.74	0.1062E+00	0.7887E-01	0.3749E-01	0.1591E-01	0.1310E-01
0.98	0.4839E-01	0.3532E-01	0.1605E-01	0.4668E-02	7.7900E-03
1.23	0.3183E-01	0.2286E-01	0.1062E-01	0.3198E-02	0.7403E-03
1.47	0.2376E-01	0.1687E-01	0.7878E-02	0.2435E-02	0.6225E-03
1.72	0.1661E-01	0.1182E-01	0.5325E-02	0.1597E-02	0.2999E-03
1.97	0.1430E-01	0.1031E-01	0.4442E-02	0.1442E-02	0.4059E-03
2.21	0.1062E-01	0.7276E-02	0.3200E-02	0.9770E-03	0.1348E-03
2.46	0.8724E-02	0.5595E-02	0.2775E-02	0.9625E-03	0.2408E-03
2.70	0.5879E-02	0.3834E-02	0.1938E-02	0.6976E-03	0.7821E-04
2.95	0.4931E-02	0.3535E-02	0.1765E-02	0.7114E-03	0.1552E-03
3.19	0.3439E-02	0.2459E-02	0.1212E-02	0.4650E-03	0.1931E-04
3.44	0.3041E-02	0.2157E-02	0.1090E-02	0.4504E-03	0.1006E-03
3.68	0.2027E-02	0.1350E-02	0.6666E-03	0.2964E-03	0.2512E-04
3.93	0.1883E-02	0.1286E-02	0.6312E-03	0.3042E-03	0.8500E-04
4.17	0.1191E-02	0.8996E-03	0.4010E-03	0.1791E-03	0.6021E-05
4.42	0.1209E-02	0.9139E-03	0.4315E-03	0.2223E-03	0.5372E-04
4.67	0.7605E-03	0.5327E-03	0.2350E-03	0.1830E-03	0.1418E-05
4.91	0.8213E-03	0.5966E-03	0.2697E-03	0.2341E-03	0.4414E-04
5.16	0.4861E-03	0.3402E-03	0.1480E-03	0.1797E-03	-0.3795E-05
5.40	0.5860E-03	0.4146E-03	0.2021E-03	0.2206E-03	0.3388E-04
5.65	0.3378E-03	0.2350E-03	0.9604E-04	0.1948E-03	-0.5260E-06
5.89	0.4373E-03	0.3312E-03	0.1437E-03	0.2306E-03	0.3439E-04
6.14	0.2349E-03	0.1844E-03	0.6398E-04	0.1928E-03	0.3733E-05
6.38	0.3243E-03	0.2432E-03	0.1067E-03	0.2380E-03	0.3221E-04
6.63	0.1431E-03	0.1272E-03	0.3311E-04	0.2216E-03	0.4041E-05
6.88	0.2402E-03	0.2121E-03	0.7476E-04	0.2636E-03	0.3076E-04
7.12	0.8131E-04	0.9524E-04	0.1197E-04	0.4016E-03	0.1197E-04
7.37	0.1928E-03	0.1756E-03	0.5285E-04	0.7094E-03	0.4303E-04

TABLE 6.32
ACCELERATION VARIANCE SPECTRAL DENSITY
10.7 ft Significant Wave Height
50.5% Beam
 $C_v = 1.616$
42.90 ft LCG
Speed = 25 knots

Runs 293, 294, 295, 296

Accelerometer	#5	#4	#3	#2	#1
Frequency Hz	Spectral Estimates g^2/Hz				
0.00	0.2333E+00	0.1883E+00	0.1250E+00	0.8926E-01	0.7787E-01
0.25	0.4803E+00	0.3798E+00	0.2399E+00	0.1648E+00	0.1518E+00
0.49	0.4542E+00	0.3499E+00	0.2067E+00	0.1322E+00	0.1276E+00
0.74	0.1619E+00	0.1201E+00	0.6194E-01	0.3037E-01	0.2531E-01
0.98	0.8226E-01	0.6065E-01	0.2974E-01	0.1118E-01	0.3453E-02
1.23	0.6301E-01	0.4592E-01	0.2278E-01	0.8792E-02	0.2840E-02
1.47	0.4991E-01	0.3598E-01	0.1798E-01	0.6943E-02	0.2189E-02
1.72	0.3860E-01	0.2784E-01	0.1374E-01	0.5197E-02	0.1670E-02
1.97	0.3186E-01	0.2309E-01	0.1126E-01	0.4399E-02	0.1965E-02
2.21	0.2505E-01	0.1784E-01	0.8511E-02	0.3211E-02	0.1608E-02
2.46	0.2100E-01	0.1472E-01	0.7042E-02	0.2818E-02	0.1519E-02
2.70	0.1710E-01	0.1173E-01	0.5493E-02	0.2247E-02	0.9439E-03
2.95	0.1498E-01	0.1014E-01	0.4835E-02	0.1987E-02	0.8472E-03
3.19	0.1231E-01	0.8219E-02	0.3901E-02	0.1477E-02	0.5926E-03
3.44	0.1058E-01	0.7211E-02	0.3425E-02	0.1380E-02	0.7429E-03
3.68	0.8167E-02	0.5654E-02	0.2587E-02	0.1067E-02	0.6643E-03
3.93	0.7032E-02	0.4830E-02	0.2205E-02	0.1032E-02	0.7267E-03
4.17	0.5550E-02	0.3734E-02	0.1654E-02	0.8224E-03	0.5093E-03
4.42	0.4804E-02	0.3261E-02	0.1498E-02	0.8324E-03	0.4192E-03
4.67	0.3782E-02	0.2545E-02	0.1173E-02	0.7447E-03	0.1900E-03
4.91	0.3144E-02	0.2250E-02	0.1054E-02	0.8357E-03	0.1873E-03
5.16	0.2327E-02	0.1680E-02	0.7427E-03	0.8157E-03	0.1114E-03
5.40	0.2040E-02	0.1469E-02	0.6618E-03	0.8896E-03	0.1678E-03
5.65	0.1467E-02	0.1061E-02	0.4707E-03	0.8144E-03	0.9660E-04
5.89	0.1367E-02	0.9846E-03	0.4772E-03	0.8004E-03	0.1094E-03
6.14	0.9732E-03	0.6832E-03	0.3262E-03	0.7946E-03	0.2525E-04
6.38	0.8845E-03	0.6013E-03	0.2981E-03	0.9875E-03	0.5245E-04
6.63	0.5934E-03	0.3973E-03	0.1673E-03	0.1104E-02	0.1208E-04
6.88	0.5669E-03	0.4239E-03	0.1937E-03	0.1378E-02	0.5936E-04
7.12	0.3322E-03	0.2383E-03	0.1070E-03	0.1678E-02	0.4395E-04
7.37	0.3801E-03	0.2599E-03	0.1210E-03	0.2246E-02	0.1066E-03

TABLE 6.33
ACCELERATION VARIANCE SPECTRAL DENSITY
10.7 ft Significant Wave Height
50.5% Beam
 $C_v = 1.939$
42.90 ft LCG
Speed = 30 knots

Runs 297, 298, 299, 300

Accelerometer	#5	#4	#3	#2	#1
Frequency Hz	Spectral Estimates g^2/Hz				
0.00	0.2302E+00	0.1899E+00	0.1335E+00	0.1015E+00	0.8947E-01
0.25	0.5207E+00	0.4200E+00	0.2788E+00	0.2029E+00	0.1864E+00
0.49	0.5478E+00	0.4290E+00	0.2646E+00	0.1788E+00	0.1700E+00
0.74	0.2300E+00	0.1729E+00	0.9411E-01	0.5078E-01	0.4244E-01
0.98	0.1267E+00	0.9529E-01	0.5013E-01	0.2244E-01	0.9730E-02
1.23	0.9581E-01	0.7156E-01	0.3828E-01	0.1813E-01	0.8484E-02
1.47	0.7185E-01	0.5347E-01	0.2929E-01	0.1479E-01	0.7402E-02
1.72	0.5791E-01	0.4304E-01	0.2357E-01	0.1246E-01	0.6387E-02
1.97	0.4860E-01	0.3529E-01	0.1953E-01	0.1102E-01	0.6042E-02
2.21	0.3887E-01	0.2803E-01	0.1549E-01	0.9083E-02	0.5230E-02
2.46	0.3305E-01	0.2413E-01	0.1340E-01	0.8204E-02	0.5018E-02
2.70	0.2721E-01	0.1987E-01	0.1081E-01	0.6933E-02	0.4286E-02
2.95	0.2342E-01	0.1693E-01	0.9247E-02	0.6371E-02	0.4102E-02
3.19	0.1998E-01	0.1394E-01	0.7468E-02	0.5411E-02	0.3472E-02
3.44	0.1762E-01	0.1226E-01	0.6438E-02	0.4975E-02	0.3270E-02
3.68	0.1464E-01	0.1014E-01	0.5166E-02	0.4290E-02	0.2770E-02
3.93	0.1288E-01	0.8953E-02	0.4525E-02	0.3941E-02	0.2622E-02
4.17	0.1057E-01	0.7224E-02	0.3541E-02	0.3296E-02	0.2239E-02
4.42	0.9326E-02	0.6284E-02	0.3042E-02	0.3067E-02	0.2074E-02
4.67	0.7583E-02	0.5091E-02	0.2328E-02	0.2693E-02	0.1722E-02
4.91	0.6557E-02	0.4434E-02	0.2037E-02	0.2515E-02	0.1575E-02
5.16	0.5400E-02	0.3525E-02	0.1573E-02	0.2188E-02	0.1294E-02
5.40	0.4744E-02	0.3085E-02	0.1385E-02	0.2027E-02	0.1166E-02
5.65	0.3902E-02	0.2497E-02	0.1034E-02	0.1708E-02	0.9538E-03
5.89	0.3401E-02	0.2207E-02	0.9343E-03	0.1617E-02	0.8675E-03
6.14	0.2773E-02	0.1712E-02	0.6960E-03	0.1466E-02	0.6822E-03
6.38	0.2510E-02	0.1551E-02	0.6731E-03	0.1491E-02	0.6204E-03
6.63	0.2058E-02	0.1203E-02	0.5124E-03	0.1422E-02	0.4686E-03
6.88	0.1932E-02	0.1108E-02	0.4921E-03	0.1656E-02	0.4199E-03
7.12	0.1647E-02	0.8835E-03	0.3124E-03	0.1857E-02	0.2772E-03
7.37	0.1739E-02	0.9228E-03	0.2993E-03	0.2156E-02	0.2780E-03

TABLE 6.34
ACCELERATION VARIANCE SPECTRAL DENSITY
2.9 ft Significant Wave Height
13.7% Beam
 $C_v = 0.646$
46.20 ft LCG
Speed = 10 knots

Run 352

Accelerometer	#5	#4	#3	#2	#1
Frequency Hz	Spectral Estimates g^2/Hz				
0.00	0.1279E-01	0.8501E-02	0.3190E-02	0.7535E-03	0.2069E-02
0.25	0.3301E-01	0.2194E-01	0.8262E-02	0.1675E-02	0.4350E-02
0.49	0.3038E-01	0.2026E-01	0.7691E-02	0.1461E-02	0.3401E-02
0.74	0.5732E-02	0.3874E-02	0.1507E-02	0.2929E-03	0.4769E-03
0.98	0.5988E-03	0.4381E-03	0.1664E-03	0.3849E-04	0.3343E-04
1.23	0.2304E-03	0.1838E-03	0.6113E-04	0.1281E-04	0.1452E-04
1.47	0.1084E-03	0.9642E-04	0.2614E-04	0.7606E-05	0.9206E-05
1.72	0.7616E-04	0.1205E-03	0.3854E-05	0.6747E-05	-0.1126E-05
1.97	0.4150E-03	0.4679E-03	0.5299E-04	0.2205E-04	0.1538E-04
2.21	0.2507E-03	0.2923E-03	0.1953E-04	0.1698E-04	0.6753E-05
2.46	0.1809E-03	0.1390E-03	0.1919E-04	0.2049E-04	0.1692E-04
2.70	0.8028E-04	0.5699E-04	-0.1831E-05	0.1592E-04	0.7434E-05
2.95	0.7628E-04	0.6102E-04	0.9793E-05	0.8447E-05	0.6848E-05
3.19	0.1833E-04	0.2824E-04	-0.2427E-05	0.2600E-05	0.1831E-06
3.44	0.8151E-04	0.6069E-04	0.9153E-05	0.5343E-05	0.6249E-05
3.68	0.2425E-04	0.2486E-04	-0.7653E-06	0.2675E-05	0.1163E-05
3.93	0.3942E-04	0.4278E-04	0.7176E-05	0.3772E-05	0.3927E-05
4.17	0.8503E-05	0.3301E-04	-0.4760E-06	0.2677E-05	0.5851E-06
4.42	0.4001E-04	0.5151E-04	0.6479E-05	0.4324E-05	0.3648E-05
4.67	0.2630E-04	0.3201E-04	0.7832E-07	0.3806E-05	0.9217E-06
4.91	0.4309E-04	0.4587E-04	0.5381E-05	0.4207E-05	0.2764E-05
5.16	0.1946E-04	0.3175E-04	-0.1630E-08	0.2445E-05	0.4632E-06
5.40	0.4046E-04	0.3773E-04	0.4492E-05	0.4625E-05	0.2592E-05
5.65	0.2254E-04	0.2466E-04	0.9465E-07	0.5593E-05	0.5156E-06
5.89	0.3800E-04	0.3864E-04	0.4370E-05	0.7436E-05	0.2352E-05
6.14	0.1859E-04	0.3022E-04	0.4303E-06	0.5892E-05	0.8461E-06
6.38	0.2912E-04	0.4184E-04	0.3750E-05	0.7931E-05	0.2459E-05
6.63	0.1487E-04	0.3263E-04	0.2353E-06	0.7421E-05	0.9798E-06
6.88	0.3340E-04	0.3882E-04	0.3859E-05	0.7780E-05	0.2175E-05
7.12	0.2381E-04	0.2928E-04	0.7351E-06	0.9222E-05	0.8808E-06
7.37	0.3232E-04	0.3439E-04	0.3396E-05	0.1499E-04	0.2426E-05

TABLE 6.35
ACCELERATION VARIANCE SPECTRAL DENSITY
2.9 ft Significant Wave Height
13.7% Beam
 $C_v = 0.970$
46.20 ft LCG
Speed = 15 knots

Run 353

Accelerometer	#5	#4	#3	#2	#1
Frequency Hz	Spectral Estimates g^2/Hz				
0.00	0.9962E-02	0.6942E-02	0.3148E-02	0.1144E-02	0.1407E-02
0.25	0.3559E-01	0.2456E-01	0.1102E-01	0.3842E-02	0.4932E-02
0.49	0.3962E-01	0.2714E-01	0.1203E-01	0.4085E-02	0.5515E-02
0.74	0.1003E-01	0.6848E-02	0.2929E-02	0.9021E-03	0.1241E-02
0.98	0.2123E-02	0.1507E-02	0.6111E-03	0.1339E-03	0.5009E-04
1.23	0.1047E-02	0.7345E-03	0.3061E-03	0.7522E-04	0.5335E-04
1.47	0.3623E-03	0.2498E-03	0.1024E-03	0.2689E-04	0.2053E-04
1.72	0.1180E-03	0.1112E-03	0.1795E-04	0.6811E-05	-0.2734E-05
1.97	0.3232E-03	0.3728E-03	0.5898E-04	0.3228E-04	0.1750E-04
2.21	0.1609E-03	0.2478E-03	0.1506E-04	0.2365E-04	0.4370E-05
2.46	0.1950E-03	0.1780E-03	0.3199E-04	0.3181E-04	0.2015E-04
2.70	0.9694E-04	0.4802E-04	-0.3531E-06	0.1583E-04	0.7592E-05
2.95	0.9965E-04	0.5777E-04	0.1761E-04	0.1190E-04	0.9756E-05
3.19	0.1070E-04	0.1868E-04	-0.3172E-05	0.7232E-06	-0.7355E-06
3.44	0.9035E-04	0.5596E-04	0.1474E-04	0.9003E-05	0.7045E-05
3.68	0.2841E-04	0.1777E-04	-0.2012E-05	0.3915E-05	-0.2087E-06
3.93	0.4851E-04	0.4288E-04	0.1105E-04	0.7326E-05	0.4440E-05
4.17	0.7002E-05	0.1403E-04	-0.1502E-05	0.3887E-05	-0.5097E-06
4.42	0.4369E-04	0.3948E-04	0.9329E-05	0.8143E-05	0.3924E-05
4.67	0.9424E-05	0.1876E-04	-0.9457E-06	0.3590E-05	0.1481E-07
4.91	0.3673E-04	0.3385E-04	0.7742E-05	0.6578E-05	0.3935E-05
5.16	0.1641E-04	0.1019E-04	-0.1483E-05	0.3162E-05	0.3815E-06
5.40	0.3857E-04	0.2794E-04	0.6637E-05	0.6211E-05	0.3440E-05
5.65	0.1026E-04	0.1527E-04	-0.4935E-07	0.3889E-05	0.5509E-06
5.89	0.2816E-04	0.2995E-04	0.6246E-05	0.7331E-05	0.3109E-05
6.14	0.1353E-04	0.1602E-04	0.3923E-06	0.5884E-05	0.5668E-06
6.38	0.3736E-04	0.2748E-04	0.6848E-05	0.8489E-05	0.2895E-05
6.63	0.1413E-04	0.1862E-04	0.1129E-05	0.8020E-05	0.1263E-05
6.88	0.2432E-04	0.3030E-04	0.6136E-05	0.1347E-04	0.3379E-05
7.12	0.1239E-04	0.2007E-04	0.1012E-05	0.1846E-04	0.7063E-06
7.37	0.3195E-04	0.2861E-04	0.5438E-05	0.2297E-04	0.2544E-05

TABLE 6.36
ACCELERATION VARIANCE SPECTRAL DENSITY
2.9 ft Significant Wave Height
13.7% Beam
 $C_v = 1.293$
46.20 ft LCG
Speed = 20 knots

Runs 354, 356

Accelerometer	#5	#4	#3	#2	#1
Frequency Hz	Spectral Estimates g^2/Hz				
0.00	0.4955E-02	0.3677E-02	0.1983E-02	0.1035E-02	0.1007E-02
0.25	0.2484E-01	0.1802E-01	0.9327E-02	0.4832E-02	0.5740E-02
0.49	0.3454E-01	0.2477E-01	0.1238E-01	0.6423E-02	0.8756E-02
0.74	0.1139E-01	0.8134E-02	0.3781E-02	0.1879E-02	0.2994E-02
0.98	0.2244E-02	0.1669E-02	0.6554E-03	0.1660E-03	0.1735E-03
1.23	0.1240E-02	0.8881E-03	0.3712E-03	0.9157E-04	0.7647E-04
1.47	0.4943E-03	0.3478E-03	0.1485E-03	0.4217E-04	0.3310E-04
1.72	0.2980E-03	0.2393E-03	0.5854E-04	0.1230E-04	0.6134E-05
1.97	0.5241E-03	0.4708E-03	0.7660E-04	0.3044E-04	0.2276E-04
2.21	0.3305E-03	0.3045E-03	0.2516E-04	0.1463E-04	0.8924E-05
2.46	0.2154E-03	0.1747E-03	0.3069E-04	0.3069E-04	0.2124E-04
2.70	0.1227E-03	0.7487E-04	0.2491E-05	0.1650E-04	0.9103E-05
2.95	0.9553E-04	0.6823E-04	0.1797E-04	0.1448E-04	0.1047E-04
3.19	0.3604E-04	0.3984E-04	0.4142E-06	0.2073E-05	0.8226E-06
3.44	0.9075E-04	0.7457E-04	0.1419E-04	0.1044E-04	0.8230E-05
3.68	0.4632E-04	0.4568E-04	0.8682E-06	0.2952E-05	0.1703E-05
3.93	0.5388E-04	0.4947E-04	0.1057E-04	0.7285E-05	0.5259E-05
4.17	0.2618E-04	0.3369E-04	-0.2261E-06	0.1939E-05	0.7907E-06
4.42	0.4518E-04	0.5348E-04	0.8671E-05	0.7305E-05	0.5057E-05
4.67	0.3202E-04	0.4433E-04	0.1925E-06	0.3817E-05	0.1007E-05
4.91	0.4956E-04	0.5157E-04	0.6872E-05	0.7485E-05	0.3996E-05
5.16	0.2507E-04	0.2896E-04	0.1034E-06	0.2832E-05	0.1176E-05
5.40	0.3199E-04	0.3804E-04	0.5968E-05	0.9547E-05	0.3867E-05
5.65	0.2035E-04	0.3179E-04	-0.1046E-06	0.1689E-04	0.1151E-05
5.89	0.3960E-04	0.4787E-04	0.4967E-05	0.2073E-04	0.3534E-05
6.14	0.2339E-04	0.4411E-04	0.1640E-07	0.2025E-04	0.1385E-05
6.38	0.3080E-04	0.4127E-04	0.4818E-05	0.3944E-04	0.3467E-05
6.63	0.2353E-04	0.2632E-04	-0.4031E-07	0.2691E-04	0.1277E-05
6.88	0.3677E-04	0.3713E-04	0.3991E-05	0.1681E-04	0.3085E-05
7.12	0.2773E-04	0.3456E-04	0.1717E-06	0.1501E-04	0.1451E-05
7.37	0.3488E-04	0.3979E-04	0.3856E-05	0.2368E-04	0.3406E-05

TABLE 6.37
ACCELERATION VARIANCE SPECTRAL DENSITY
2.9 ft Significant Wave Height
13.7% Beam
 $C_y = 1.616$
46.20 ft LCG
Speed = 25 knots

Runs 357, 358

Accelerometer	#5	#4	#3	#2	#1
Frequency Hz	Spectral Estimates g^2/Hz				
0.00	0.1744E-02	0.1292E-02	0.7957E-03	0.5636E-03	0.6543E-03
0.25	0.1337E-01	0.9835E-02	0.5412E-02	0.3522E-02	0.4916E-02
0.49	0.2526E-01	0.1808E-01	0.9177E-02	0.5615E-02	0.9182E-02
0.74	0.1362E-01	0.9479E-02	0.4379E-02	0.2247E-02	0.4142E-02
0.98	0.5399E-02	0.3675E-02	0.1627E-02	0.5301E-03	0.6471E-03
1.23	0.2845E-02	0.1849E-02	0.7992E-03	0.2269E-03	0.2879E-03
1.47	0.1022E-02	0.6481E-03	0.2874E-03	0.7135E-04	0.9157E-04
1.72	0.5595E-03	0.4320E-03	0.1441E-03	0.3266E-04	0.4090E-04
1.97	0.5534E-03	0.5852E-03	0.1084E-03	0.3427E-04	0.2891E-04
2.21	0.3768E-03	0.4113E-03	0.5984E-04	0.1907E-04	0.2003E-04
2.46	0.2057E-03	0.1894E-03	0.4232E-04	0.2827E-04	0.1931E-04
2.70	0.1571E-03	0.1110E-03	0.2075E-04	0.1986E-04	0.1692E-04
2.95	0.1254E-03	0.7369E-04	0.2111E-04	0.1943E-04	0.1351E-04
3.19	0.7752E-04	0.5750E-04	0.1182E-04	0.5693E-05	0.6122E-05
3.44	0.9512E-04	0.6311E-04	0.1627E-04	0.1071E-04	0.6664E-05
3.68	0.7678E-04	0.4864E-04	0.9168E-05	0.7415E-05	0.4754E-05
3.93	0.4781E-04	0.4669E-04	0.9973E-05	0.1142E-04	0.4609E-05
4.17	0.3372E-04	0.4109E-04	0.5260E-05	0.4947E-05	0.4219E-05
4.42	0.3793E-04	0.3837E-04	0.9772E-05	0.6514E-05	0.4215E-05
4.67	0.4569E-04	0.3720E-04	0.6953E-05	0.3383E-05	0.2856E-05
4.91	0.4468E-04	0.3920E-04	0.8964E-05	0.6921E-05	0.3160E-05
5.16	0.3599E-04	0.3302E-04	0.3983E-05	0.4495E-05	0.2772E-05
5.40	0.3571E-04	0.3402E-04	0.6476E-05	0.7416E-05	0.2892E-05
5.65	0.3252E-04	0.3367E-04	0.4235E-05	0.7895E-05	0.1885E-05
5.89	0.3527E-04	0.3492E-04	0.6609E-05	0.1738E-04	0.2860E-05
6.14	0.2808E-04	0.3589E-04	0.3814E-05	0.1625E-04	0.2966E-05
6.38	0.2472E-04	0.3433E-04	0.5255E-05	0.1828E-04	0.3364E-05
6.63	0.3239E-04	0.2916E-04	0.3506E-05	0.2092E-04	0.2792E-05
6.88	0.4087E-04	0.3001E-04	0.6089E-05	0.8247E-04	0.2860E-05
7.12	0.3816E-04	0.3171E-04	0.4908E-05	0.2606E-03	0.3019E-05
7.37	0.3402E-04	0.3540E-04	0.5550E-05	0.2387E-03	0.3377E-05

TABLE 6.38
ACCELERATION VARIANCE SPECTRAL DENSITY
2.9 ft Significant Wave Height
13.7% Beam
 $C_v = 1.939$
46.20 ft LCG
Speed = 30 knots

Runs 359, 360

Accelerometer	#5	#4	#3	#2	#1
Frequency Hz	Spectral Estimates g^2/Hz				
0.00	0.5811E-03	0.4289E-03	0.2973E-03	0.2428E-03	0.2768E-03
0.25	0.8391E-02	0.6087E-02	0.3223E-02	0.2075E-02	0.3238E-02
0.49	0.2297E-01	0.1610E-01	0.7490E-02	0.3995E-02	0.7480E-02
0.74	0.1783E-01	0.1230E-01	0.5276E-02	0.2106E-02	0.4163E-02
0.98	0.7443E-02	0.5465E-02	0.2447E-02	0.8367E-03	0.8751E-03
1.23	0.3822E-02	0.2938E-02	0.1289E-02	0.4689E-03	0.5608E-03
1.47	0.1834E-02	0.1320E-02	0.5447E-03	0.1550E-03	0.2575E-03
1.72	0.1100E-02	0.7954E-03	0.3011E-03	0.6560E-04	0.1173E-03
1.97	0.7615E-03	0.7454E-03	0.1778E-03	0.4376E-04	0.6173E-04
2.21	0.5234E-03	0.5220E-03	0.1019E-03	0.3525E-04	0.3906E-04
2.46	0.2340E-03	0.2290E-03	0.4390E-04	0.3085E-04	0.2129E-04
2.70	0.1647E-03	0.1475E-03	0.2889E-04	0.2039E-04	0.1824E-04
2.95	0.1126E-03	0.8642E-04	0.1831E-04	0.1502E-04	0.1007E-04
3.19	0.1103E-03	0.7457E-04	0.1609E-04	0.8886E-05	0.8981E-05
3.44	0.1061E-03	0.5556E-04	0.1067E-04	0.7854E-05	0.2267E-05
3.68	0.9883E-04	0.6327E-04	0.1152E-04	0.8029E-05	0.5353E-05
3.93	0.4004E-04	0.4327E-04	0.7489E-05	0.8336E-05	0.1758E-05
4.17	0.5081E-04	0.5177E-04	0.9615E-05	0.1075E-04	0.4499E-05
4.42	0.4941E-04	0.4953E-04	0.9216E-05	0.1327E-04	0.2272E-05
4.67	0.5808E-04	0.5311E-04	0.9167E-05	0.1378E-04	0.4181E-05
4.91	0.3932E-04	0.4058E-04	0.4614E-05	0.1229E-04	0.1888E-05
5.16	0.4564E-04	0.5749E-04	0.5219E-05	0.1006E-04	0.3499E-05
5.40	0.3750E-04	0.5033E-04	0.3877E-05	0.1392E-04	0.1978E-05
5.65	0.4858E-04	0.4915E-04	0.4827E-05	0.1720E-04	0.3224E-05
5.89	0.3665E-04	0.4365E-04	0.3194E-05	0.1550E-04	0.1273E-05
6.14	0.3504E-04	0.4728E-04	0.3633E-05	0.1724E-04	0.2630E-05
6.38	0.2571E-04	0.4454E-04	0.2718E-05	0.2208E-04	0.2004E-05
6.63	0.3274E-04	0.4868E-04	0.3323E-05	0.3248E-04	0.3431E-05
6.88	0.3452E-04	0.4411E-04	0.1845E-05	0.4818E-04	0.2093E-05
7.12	0.4362E-04	0.4846E-04	0.2793E-05	0.7068E-04	0.2805E-05
7.37	0.3847E-04	0.3413E-04	0.2323E-05	0.7433E-04	0.1946E-05

TABLE 6.39
ACCELERATION VARIANCE SPECTRAL DENSITY
2.9 ft Significant Wave Height
13.7% Beam
C_v = 2.263
46.20 ft LCG
Speed = 35 knots

Runs 361, 362

Accelerometer	#5	#4	#3	#2	#1
Frequency Hz	Spectral Estimates g ² /Hz				
0.00	0.2912E-03	0.2023E-03	0.1480E-03	0.1290E-03	0.9994E-04
0.25	0.6238E-02	0.4417E-02	0.2305E-02	0.1370E-02	0.1958E-02
0.49	0.2322E-01	0.1596E-01	0.7350E-02	0.3426E-02	0.5838E-02
0.74	0.2586E-01	0.1769E-01	0.7634E-02	0.2593E-02	0.4231E-02
0.98	0.1496E-01	0.1077E-01	0.4811E-02	0.1429E-02	0.1256E-02
1.23	0.8640E-02	0.6484E-02	0.2880E-02	0.9396E-03	0.9884E-03
1.47	0.4246E-02	0.3087E-02	0.1250E-02	0.3474E-03	0.5545E-03
1.72	0.2268E-02	0.1730E-02	0.6384E-03	0.1426E-03	0.2164E-03
1.97	0.1671E-02	0.1749E-02	0.5031E-03	0.1109E-03	0.1418E-03
2.21	0.1079E-02	0.1081E-02	0.2958E-03	0.7489E-04	0.9473E-04
2.46	0.5440E-03	0.3418E-03	0.1163E-03	0.4591E-04	0.3273E-04
2.70	0.3908E-03	0.2501E-03	0.7914E-04	0.3850E-04	0.2845E-04
2.95	0.2852E-03	0.1835E-03	0.5189E-04	0.2747E-04	0.1802E-04
3.19	0.1953E-03	0.1285E-03	0.4179E-04	0.1606E-04	0.1573E-04
3.44	0.1307E-03	0.8389E-04	0.2732E-04	0.9972E-05	0.6427E-05
3.68	0.1260E-03	0.8907E-04	0.2488E-04	0.1139E-04	0.1025E-04
3.93	0.9651E-04	0.6582E-04	0.1984E-04	0.1112E-04	0.3865E-05
4.17	0.1048E-03	0.6992E-04	0.2208E-04	0.1307E-04	0.7789E-05
4.42	0.7825E-04	0.4994E-04	0.1637E-04	0.1103E-04	0.3596E-05
4.67	0.7685E-04	0.6855E-04	0.1764E-04	0.1109E-04	0.7022E-05
4.91	0.6242E-04	0.5904E-04	0.1103E-04	0.1456E-04	0.3349E-05
5.16	0.6745E-04	0.5795E-04	0.1029E-04	0.1888E-04	0.5975E-05
5.40	0.5052E-04	0.4754E-04	0.7420E-05	0.2195E-04	0.3645E-05
5.65	0.5030E-04	0.4945E-04	0.8802E-05	0.2532E-04	0.5909E-05
5.89	0.5196E-04	0.3778E-04	0.5846E-05	0.3290E-04	0.4213E-05
6.14	0.6963E-04	0.4576E-04	0.7159E-05	0.4582E-04	0.6322E-05
6.38	0.6278E-04	0.4153E-04	0.5304E-05	0.5277E-04	0.2995E-05
6.63	0.5501E-04	0.4234E-04	0.6364E-05	0.4941E-04	0.4367E-05
6.88	0.3900E-04	0.3473E-04	0.4136E-05	0.4867E-04	0.3202E-05
7.12	0.4472E-04	0.3478E-04	0.4909E-05	0.5902E-04	0.5116E-05
7.37	0.4277E-04	0.3200E-04	0.2967E-05	0.7250E-04	0.3399E-05

TABLE 6.40
ACCELERATION VARIANCE SPECTRAL DENSITY
4.6 ft Significant Wave Height
21.7% Beam
 $C_v = 0.646$
46.20 ft LCG
Speed = 10 knots

Run 363

Accelerometer	#5	#4	#3	#2	#1
Frequency Hz	Spectral Estimates g^2/Hz				
0.00	0.3515E-01	0.2396E-01	0.9419E-02	0.3362E-02	0.7733E-02
0.25	0.7733E-01	0.5247E-01	0.1993E-01	0.5358E-02	0.1263E-01
0.49	0.6468E-01	0.4381E-01	0.1648E-01	0.3679E-02	0.8391E-02
0.74	0.1147E-01	0.7701E-02	0.2992E-02	0.5650E-03	0.9100E-03
0.98	0.1780E-02	0.1175E-02	0.4795E-03	0.9064E-04	0.6741E-04
1.23	0.6116E-03	0.4056E-03	0.1501E-03	0.2450E-04	0.3653E-04
1.47	0.3412E-03	0.2039E-03	0.7752E-04	0.1296E-04	0.2227E-04
1.72	0.1189E-03	0.1429E-03	0.1042E-04	0.5467E-05	-0.4577E-05
1.97	0.5691E-03	0.5959E-03	0.7775E-04	0.2448E-04	0.2286E-04
2.21	0.2711E-03	0.3507E-03	0.1504E-04	0.1565E-04	0.2640E-05
2.46	0.2461E-03	0.2157E-03	0.3114E-04	0.1881E-04	0.1861E-04
2.70	0.6942E-04	0.5303E-04	-0.6553E-05	0.1083E-04	0.1090E-05
2.95	0.2005E-03	0.1172E-03	0.2183E-04	0.1702E-04	0.1479E-04
3.19	0.5477E-04	0.5518E-04	-0.5169E-05	0.7621E-05	0.1546E-05
3.44	0.1248E-03	0.1122E-03	0.1694E-04	0.7110E-05	0.9624E-05
3.68	0.2996E-04	0.4483E-04	-0.3873E-05	0.3210E-05	0.7310E-07
3.93	0.7685E-04	0.7260E-04	0.1420E-04	0.5210E-05	0.6159E-05
4.17	0.1312E-04	0.2857E-04	-0.1840E-05	0.2404E-05	-0.9270E-06
4.42	0.6735E-04	0.7301E-04	0.1172E-04	0.4291E-05	0.5207E-05
4.67	0.1645E-04	0.4687E-04	-0.1835E-05	0.2447E-05	0.1296E-06
4.91	0.5652E-04	0.7834E-04	0.1012E-04	0.4290E-05	0.5171E-05
5.16	0.1507E-04	0.3576E-04	-0.1151E-05	0.2629E-05	-0.2292E-06
5.40	0.5977E-04	0.5436E-04	0.9234E-05	0.5569E-05	0.3946E-05
5.65	0.1815E-04	0.4321E-04	0.1273E-06	0.5193E-05	0.3000E-06
5.89	0.4857E-04	0.7019E-04	0.7770E-05	0.5005E-05	0.3860E-05
6.14	0.1931E-04	0.4302E-04	-0.9425E-06	0.3938E-05	0.3962E-06
6.38	0.4895E-04	0.5727E-04	0.6504E-05	0.7340E-05	0.3436E-05
6.63	0.1745E-04	0.4465E-04	-0.2144E-06	0.7102E-05	0.3611E-06
6.88	0.4610E-04	0.7045E-04	0.6537E-05	0.1038E-04	0.3579E-05
7.12	0.2294E-04	0.4960E-04	-0.2422E-07	0.1297E-04	0.8863E-06
7.37	0.4915E-04	0.5828E-04	0.5619E-05	0.1677E-04	0.3330E-05

TABLE 6.41
ACCELERATION VARIANCE SPECTRAL DENSITY
4.6 ft Significant Wave Height
21.7% Beam
C_v = 0.970
46.20 ft LCG
Speed = 15 knots

Runs 364, 365

Accelerometer	#5	#4	#3	#2	#1
Frequency Hz	Spectral Estimates g ² /Hz				
0.00	0.4152E-01	0.2946E-01	0.1402E-01	0.6210E-02	0.7937E-02
0.25	0.1133E+00	0.7984E-01	0.3677E-01	0.1486E-01	0.1907E-01
0.49	0.1091E+00	0.7657E-01	0.3449E-01	0.1321E-01	0.1741E-01
0.74	0.2581E-01	0.1799E-01	0.7805E-02	0.2512E-02	0.3077E-02
0.98	0.6987E-02	0.4878E-02	0.2117E-02	0.4562E-03	0.5014E-04
1.23	0.2808E-02	0.1974E-02	0.8593E-03	0.2071E-03	0.7803E-04
1.47	0.1258E-02	0.9130E-03	0.3859E-03	0.9724E-04	0.5368E-04
1.72	0.4036E-03	0.3358E-03	0.1012E-03	0.1460E-04	-0.1081E-04
1.97	0.7589E-03	0.6851E-03	0.1876E-03	0.6068E-04	0.4445E-04
2.21	0.2670E-03	0.2899E-03	0.3822E-04	0.1672E-04	-0.6039E-05
2.46	0.4141E-03	0.2917E-03	0.1026E-03	0.4477E-04	0.3188E-04
2.70	0.9139E-04	0.5083E-04	0.3374E-05	0.3200E-05	-0.6532E-05
2.95	0.2853E-03	0.1829E-03	0.6361E-04	0.2451E-04	0.2237E-04
3.19	0.4592E-04	0.2689E-04	-0.5551E-05	-0.1534E-06	-0.5555E-05
3.44	0.2016E-03	0.1344E-03	0.4399E-04	0.1665E-04	0.1709E-04
3.68	0.2251E-04	0.1620E-04	-0.9744E-05	-0.2641E-05	-0.4500E-05
3.93	0.1194E-03	0.9675E-04	0.2928E-04	0.1197E-04	0.1139E-04
4.17	-0.1219E-04	0.7186E-05	-0.1092E-04	-0.6658E-06	-0.5494E-05
4.42	0.8996E-04	0.7822E-04	0.2318E-04	0.1252E-04	0.8971E-05
4.67	-0.9682E-05	0.7047E-05	-0.9283E-05	-0.1477E-06	-0.4171E-05
4.91	0.7938E-04	0.6770E-04	0.1842E-04	0.9754E-05	0.7884E-05
5.16	-0.5223E-05	0.9470E-05	-0.8578E-05	-0.6317E-06	-0.3157E-05
5.40	0.6566E-04	0.5953E-04	0.1562E-04	0.8671E-05	0.6884E-05
5.65	-0.3373E-05	0.1066E-04	-0.7003E-05	0.1240E-05	-0.2725E-05
5.89	0.6475E-04	0.5327E-04	0.1425E-04	0.1105E-04	0.5996E-05
6.14	0.2151E-05	0.1091E-04	-0.5269E-05	0.4794E-05	-0.2026E-05
6.38	0.5610E-04	0.5562E-04	0.1211E-04	0.1172E-04	0.5988E-05
6.63	0.3375E-05	0.1814E-04	-0.5450E-05	0.7430E-05	-0.7619E-06
6.88	0.5652E-04	0.4584E-04	0.1101E-04	0.1944E-04	0.6187E-05
7.12	0.7857E-05	0.1592E-04	-0.4475E-05	0.2255E-04	-0.3077E-06
7.37	0.5162E-04	0.5427E-04	0.9756E-05	0.3564E-04	0.5956E-05

TABLE 6.42
ACCELERATION VARIANCE SPECTRAL DENSITY
4.6 ft Significant Wave Height
21.7% Beam
 $C_v = 1.293$
46.20 ft LCG
Speed = 20 knots

Runs 371, 372

Accelerometer	#5	#4	#3	#2	#1
Frequency Hz	Spectral Estimates g^2/Hz				
0.00	0.3350E-01	0.2466E-01	0.1399E-01	0.7779E-02	0.7819E-02
0.25	0.1121E+00	0.8140E-01	0.4427E-01	0.2406E-01	0.2721E-01
0.49	0.1274E+00	0.9117E-01	0.4767E-01	0.2526E-01	0.3184E-01
0.74	0.3788E-01	0.2650E-01	0.1265E-01	0.5695E-02	0.8015E-02
0.98	0.1171E-01	0.8234E-02	0.3499E-02	0.7254E-03	0.3027E-03
1.23	0.6988E-02	0.4911E-02	0.2122E-02	0.5018E-03	0.2361E-03
1.47	0.3792E-02	0.2683E-02	0.1174E-02	0.3094E-03	0.1342E-03
1.72	0.1872E-02	0.1356E-02	0.5445E-03	0.1037E-03	0.1047E-04
1.97	0.1739E-02	0.1198E-02	0.4665E-03	0.1373E-03	0.8000E-04
2.21	0.9799E-03	0.6537E-03	0.2035E-03	0.3970E-04	-0.3876E-05
2.46	0.8630E-03	0.6088E-03	0.2346E-03	0.9064E-04	0.5382E-04
2.70	0.3483E-03	0.2230E-03	0.7426E-04	0.1824E-04	-0.9850E-05
2.95	0.4331E-03	0.2821E-03	0.1270E-03	0.5214E-04	0.3454E-04
3.19	0.1956E-03	0.1146E-03	0.2848E-04	0.9230E-05	-0.5182E-05
3.44	0.2708E-03	0.2147E-03	0.8127E-04	0.3656E-04	0.2790E-04
3.68	0.4887E-04	0.6353E-04	0.1009E-04	-0.1216E-05	-0.7519E-05
3.93	0.1519E-03	0.1205E-03	0.5438E-04	0.2470E-04	0.1818E-04
4.17	0.4168E-04	0.2564E-04	0.3235E-05	-0.1980E-05	-0.7921E-05
4.42	0.1330E-03	0.1003E-03	0.4200E-04	0.1972E-04	0.1437E-04
4.67	0.1790E-04	0.2580E-04	-0.2140E-05	-0.1763E-05	-0.5884E-05
4.91	0.8877E-04	0.8309E-04	0.2961E-04	0.1798E-04	0.1267E-04
5.16	-0.6687E-05	0.1556E-04	-0.7814E-05	0.1326E-06	-0.5486E-05
5.40	0.6746E-04	0.6140E-04	0.2051E-04	0.1945E-04	0.1037E-04
5.65	0.1276E-05	0.8461E-05	-0.8377E-05	0.1412E-04	-0.4299E-05
5.89	0.6159E-04	0.5397E-04	0.1616E-04	0.3038E-04	0.9161E-05
6.14	-0.4350E-05	0.7968E-05	-0.8428E-05	0.1427E-04	-0.4006E-05
6.38	0.5026E-04	0.5128E-04	0.1461E-04	0.3391E-04	0.7995E-05
6.63	0.2688E-06	0.1115E-04	-0.6925E-05	0.1506E-04	-0.3049E-05
6.88	0.4980E-04	0.4742E-04	0.1272E-04	0.2593E-04	0.7724E-05
7.12	0.4887E-05	0.1448E-04	-0.6498E-05	0.1802E-04	-0.2334E-05
7.37	0.5368E-04	0.4198E-04	0.1142E-04	0.4253E-04	0.7662E-05

TABLE 6.43
ACCELERATION VARIANCE SPECTRAL DENSITY
4.6 ft Significant Wave Height
21.7% Beam
 $C_v = 1.616$
46.20 ft LCG
Speed = 25 knots

Runs 373, 374

Accelerometer	#5	#4	#3	#2	#1
Frequency Hz	Spectral Estimates g^2/Hz				
0.00	0.2324E-01	0.1799E-01	0.1149E-01	0.7827E-02	0.8034E-02
0.25	0.1001E+00	0.7481E-01	0.4393E-01	0.2861E-01	0.3495E-01
0.49	0.1394E+00	0.1011E+00	0.5511E-01	0.3391E-01	0.4717E-01
0.74	0.5485E-01	0.3821E-01	0.1819E-01	0.8984E-02	0.1433E-01
0.98	0.1672E-01	0.1156E-01	0.4693E-02	0.9470E-03	0.7451E-03
1.23	0.1017E-01	0.7121E-02	0.2992E-02	0.6569E-03	0.4055E-03
1.47	0.5331E-02	0.3716E-02	0.1685E-02	0.4357E-03	0.1882E-03
1.72	0.2766E-02	0.1923E-02	0.8308E-03	0.1792E-03	0.1763E-04
1.97	0.2142E-02	0.1592E-02	0.6267E-03	0.1861E-03	0.9699E-04
2.21	0.1204E-02	0.9016E-03	0.3064E-03	0.5175E-04	-0.2247E-05
2.46	0.8755E-03	0.6755E-03	0.2868E-03	0.1009E-03	0.6248E-04
2.70	0.4101E-03	0.3029E-03	0.1016E-03	0.1674E-04	-0.1328E-04
2.95	0.4495E-03	0.2795E-03	0.1212E-03	0.5760E-04	0.3329E-04
3.19	0.2214E-03	0.1183E-03	0.2541E-04	0.1812E-05	-0.1442E-04
3.44	0.1990E-03	0.1728E-03	0.6741E-04	0.3821E-04	0.2492E-04
3.68	0.5855E-04	0.5114E-04	0.2629E-05	-0.4751E-05	-0.1411E-04
3.93	0.1313E-03	0.1045E-03	0.4468E-04	0.3047E-04	0.1715E-04
4.17	0.3523E-04	0.4257E-04	0.3620E-06	0.2113E-07	-0.1230E-04
4.42	0.1063E-03	0.9484E-04	0.3792E-04	0.2575E-04	0.1516E-04
4.67	0.3639E-04	0.3557E-04	0.1331E-05	-0.1417E-05	-0.7580E-05
4.91	0.8747E-04	0.8861E-04	0.3117E-04	0.2177E-04	0.1375E-04
5.16	0.2541E-04	0.4400E-04	-0.9084E-06	-0.1899E-05	-0.6842E-05
5.40	0.8071E-04	0.7253E-04	0.2320E-04	0.2207E-04	0.1250E-04
5.65	0.3060E-04	0.2898E-04	-0.1967E-05	0.7771E-05	-0.4090E-05
5.89	0.6317E-04	0.6102E-04	0.2202E-04	0.2957E-04	0.1108E-04
6.14	0.2212E-04	0.2685E-04	-0.1252E-05	0.1705E-04	-0.4279E-05
6.38	0.6105E-04	0.5636E-04	0.1580E-04	0.3674E-04	0.9733E-05
6.63	0.2014E-04	0.1820E-04	-0.4377E-05	0.1888E-04	-0.2967E-05
6.88	0.5062E-04	0.4136E-04	0.1320E-04	0.7863E-04	0.9277E-05
7.12	0.1779E-04	0.1989E-04	-0.3510E-05	0.1921E-03	-0.2008E-05
7.37	0.4884E-04	0.4596E-04	0.1215E-04	0.2018E-03	0.9365E-05

TABLE 6.44
ACCELERATION VARIANCE SPECTRAL DENSITY
4.6 ft Significant Wave Height
21.7% Beam
 $C_v = 1.939$
46.20 ft LCG
Speed = 30 knots

Runs 375, 376, 377

Accelerometer	#5	#4	#3	#2	#1
Frequency Hz	Spectral Estimates g^2/Hz				
0.00	0.1527E-01	0.1179E-01	0.7862E-02	0.5882E-02	0.6781E-02
0.25	0.8149E-01	0.6112E-01	0.3668E-01	0.2537E-01	0.3310E-01
0.49	0.1378E+00	0.9988E-01	0.5437E-01	0.3423E-01	0.5058E-01
0.74	0.6786E-01	0.4726E-01	0.2227E-01	0.1104E-01	0.1891E-01
0.98	0.2129E-01	0.1468E-01	0.6060E-02	0.1496E-02	0.1845E-02
1.23	0.1244E-01	0.8694E-02	0.3680E-02	0.9387E-03	0.8763E-03
1.47	0.6574E-02	0.4649E-02	0.2046E-02	0.5712E-03	0.4152E-03
1.72	0.3802E-02	0.2744E-02	0.1198E-02	0.3291E-03	0.2013E-03
1.97	0.2475E-02	0.1957E-02	0.7762E-03	0.2620E-03	0.1833E-03
2.21	0.1454E-02	0.1188E-02	0.4048E-03	0.9826E-04	0.5914E-04
2.46	0.8377E-03	0.6587E-03	0.2698E-03	0.9338E-04	0.6941E-04
2.70	0.4582E-03	0.3500E-03	0.1244E-03	0.2722E-04	0.1031E-04
2.95	0.3111E-03	0.2515E-03	0.1087E-03	0.5952E-04	0.3207E-04
3.19	0.2083E-03	0.1423E-03	0.4371E-04	0.1964E-04	0.8682E-06
3.44	0.1772E-03	0.1128E-03	0.5483E-04	0.3534E-04	0.2321E-04
3.68	0.1032E-03	0.6431E-04	0.1505E-04	0.2852E-05	-0.1020E-05
3.93	0.1002E-03	0.9450E-04	0.3801E-04	0.2480E-04	0.1812E-04
4.17	0.7415E-04	0.7044E-04	0.1416E-04	0.6181E-05	-0.3342E-06
4.42	0.8423E-04	0.7814E-04	0.2969E-04	0.2448E-04	0.1519E-05
4.67	0.5507E-04	0.5304E-04	0.7280E-05	0.5389E-05	0.2896E-06
4.91	0.6013E-04	0.6308E-04	0.2323E-04	0.2012E-04	0.1241E-04
5.16	0.3931E-04	0.4921E-04	0.6986E-05	0.7975E-05	-0.4308E-06
5.40	0.4924E-04	0.6598E-04	0.1979E-04	0.2513E-04	0.1064E-04
5.65	0.3678E-04	0.5181E-04	0.4409E-05	0.1465E-04	-0.5898E-07
5.89	0.4513E-04	0.5436E-04	0.1340E-04	0.2208E-04	0.9534E-05
6.14	0.3050E-04	0.3721E-04	0.1049E-05	0.1601E-04	0.3616E-06
6.38	0.3986E-04	0.5070E-04	0.1113E-04	0.3193E-04	0.9337E-05
6.63	0.3122E-04	0.3921E-04	0.6731E-06	0.3102E-04	0.2116E-05
6.88	0.3749E-04	0.4674E-04	0.1096E-04	0.5926E-04	0.1036E-04
7.12	0.2806E-04	0.3724E-04	0.1885E-05	0.7939E-04	0.3604E-05
7.37	0.4575E-04	0.5169E-04	0.1001E-04	0.1176E-03	0.1080E-04

TABLE 6.45
ACCELERATION VARIANCE SPECTRAL DENSITY
10.7 ft Significant Wave Height
50.5% Beam
 $C_v = 0.646$
46.20 ft LCG
Speed = 10 knots

Runs 378, 379

Accelerometer	#5	#4	#3	#2	#1
Frequency Hz	Spectral Estimates g^2/Hz				
0.00	0.1300E+00	0.9102E-01	0.4399E-01	0.2434E-01	0.4089E-01
0.25	0.2074E+00	0.1416E+00	0.6192E-01	0.2668E-01	0.4960E-01
0.49	0.1420E+00	0.9561E-01	0.3922E-01	0.1291E-01	0.2551E-01
0.74	0.2384E-01	0.1612E-01	0.6453E-02	0.1358E-02	0.1854E-02
0.98	0.6832E-02	0.4684E-02	0.1955E-02	0.3937E-03	0.1832E-03
1.23	0.3315E-02	0.2220E-02	0.9219E-03	0.1778E-03	0.1199E-03
1.47	0.2103E-02	0.1375E-02	0.5694E-03	0.1035E-03	0.8670E-04
1.72	0.1127E-02	0.7870E-03	0.3056E-03	0.6335E-04	0.2872E-04
1.97	0.1289E-02	0.1033E-02	0.3058E-03	0.6341E-04	0.5967E-04
2.21	0.6867E-03	0.6215E-03	0.1708E-03	0.4403E-04	0.2403E-04
2.46	0.7012E-03	0.5383E-03	0.1798E-03	0.4170E-04	0.4611E-04
2.70	0.3226E-03	0.2260E-03	0.8781E-04	0.2370E-04	0.1366E-04
2.95	0.4234E-03	0.2732E-03	0.1064E-03	0.2638E-04	0.2984E-04
3.19	0.1850E-03	0.1359E-03	0.4570E-04	0.1996E-04	0.1127E-04
3.44	0.2757E-03	0.2028E-03	0.6433E-04	0.1775E-04	0.2075E-04
3.68	0.6599E-04	0.6705E-04	0.1601E-04	0.8456E-05	0.3017E-05
3.93	0.1384E-03	0.1229E-03	0.3577E-04	0.9720E-05	0.1275E-04
4.17	0.1206E-04	0.4100E-04	0.4082E-05	0.5601E-05	0.8892E-06
4.42	0.1020E-03	0.9286E-04	0.2234E-04	0.7177E-05	0.9315E-05
4.67	0.1275E-04	0.3707E-04	0.1644E-06	0.4063E-05	0.7631E-06
4.91	0.8499E-04	0.8558E-04	0.1728E-04	0.6577E-05	0.7932E-05
5.16	0.2876E-05	0.2531E-04	-0.1940E-05	0.4954E-05	-0.1421E-07
5.40	0.6912E-04	0.6489E-04	0.1455E-04	0.7983E-05	0.6803E-05
5.65	0.3118E-05	0.2380E-04	-0.1005E-05	0.6932E-05	0.4210E-06
5.89	0.5989E-04	0.6452E-04	0.1199E-04	0.9371E-05	0.6127E-05
6.14	0.4275E-05	0.2688E-04	-0.1065E-05	0.8325E-05	0.6758E-06
6.38	0.5550E-04	0.5643E-04	0.1063E-04	0.1256E-04	0.5689E-05
6.63	0.1086E-04	0.2548E-04	-0.1608E-05	0.1366E-04	0.1481E-05
6.88	0.5584E-04	0.5892E-04	0.9109E-05	0.2007E-04	0.6696E-05
7.12	0.9254E-05	0.3201E-04	-0.7563E-06	0.3524E-04	0.3588E-05
7.37	0.5410E-04	0.5547E-04	0.8644E-05	0.7459E-04	0.9338E-05

TABLE 6.46
ACCELERATION VARIANCE SPECTRAL DENSITY
10.7 ft Significant Wave Height
50.5% Beam
 $C_v = 0.970$
46.20 ft LCG
Speed = 15 knots

Runs 380, 381, 382

Accelerometer	#5	#4	#3	#2	#1
Frequency Hz	Spectral Estimates g^2/Hz				
0.00	0.1636E+00	0.1209E+00	0.6763E-01	0.4113E-01	0.4983E-01
0.25	0.2962E+00	0.2140E+00	0.1114E+00	0.5911E-01	0.7219E-01
0.49	0.2311E+00	0.1641E+00	0.8071E-01	0.3770E-01	0.4661E-01
0.74	0.5237E-01	0.3625E-01	0.1610E-01	0.5218E-02	0.5791E-02
0.98	0.1822E+01	0.1260E-01	0.5342E-02	0.1059E-02	0.2665E-03
1.23	0.1052E-01	0.7219E-02	0.3150E-02	0.6841E-03	0.2429E-03
1.47	0.7471E-02	0.5168E-02	0.2303E-02	0.5420E-03	0.1850E-03
1.72	0.4600E-02	0.3227E-02	0.1435E-02	0.3355E-03	0.3098E-04
1.97	0.4079E-02	0.2997E-02	0.1288E-02	0.3504E-03	0.1059E-03
2.21	0.2603E-02	0.1919E-02	0.8301E-03	0.2204E-03	0.1097E-04
2.46	0.2358E-02	0.1687E-02	0.7859E-03	0.2389E-03	0.7804E-04
2.70	0.1429E-02	0.1032E-02	0.4890E-03	0.1429E-03	0.5209E-05
2.95	0.1475E-02	0.1025E-02	0.4794E-03	0.1597E-03	0.5401E-04
3.19	0.9665E-03	0.6432E-03	0.2976E-03	0.8823E-04	0.2359E-05
3.44	0.1028E-02	0.6864E-03	0.3244E-03	0.9811E-04	0.3899E-04
3.68	0.5678E-03	0.3925E-03	0.1912E-03	0.5903E-04	-0.4485E-06
3.93	0.6420E-03	0.4681E-03	0.2333E-03	0.8478E-04	0.2778E-04
4.17	0.3579E-03	0.2651E-03	0.1388E-03	0.5564E-04	-0.4975E-05
4.42	0.4554E-03	0.3190E-03	0.1617E-03	0.7824E-04	0.2208E-04
4.67	0.2204E-03	0.1667E-03	0.8313E-04	0.4856E-04	-0.2248E-05
4.91	0.2896E-03	0.2288E-03	0.1102E-03	0.5240E-04	0.1728E-04
5.16	0.1147E-03	0.9773E-04	0.4351E-04	0.3302E-04	-0.2270E-05
5.40	0.2182E-03	0.1632E-03	0.6888E-04	0.4891E-04	0.1708E-04
5.65	0.8865E-04	0.6815E-04	0.2548E-04	0.2630E-04	-0.1246E-05
5.89	0.1542E-03	0.1195E-03	0.5154E-04	0.4548E-04	0.1321E-04
6.14	0.2532E-04	0.3069E-04	0.9572E-05	0.4395E-04	-0.1846E-05
6.38	0.1113E-03	0.8766E-04	0.3713E-04	0.4939E-04	0.1194E-04
6.63	0.2378E-04	0.2110E-04	0.3871E-05	0.3893E-04	-0.1217E-05
6.88	0.9818E-04	0.7314E-04	0.2569E-04	0.6952E-04	0.1226E-04
7.12	0.1733E-04	0.1464E-04	0.3316E-06	0.7907E-04	0.2047E-05
7.37	0.8751E-04	0.6033E-04	0.2249E-04	0.1325E-03	0.1566E-04

TABLE 6.47
ACCELERATION VARIANCE SPECTRAL DENSITY
10.7 ft Significant Wave Height
50.5% Beam
C_v = 1.293
46.20 ft LCG
Speed = 20 knots

Runs 383, 384, 385

Accelerometer	#5	#4	#3	#2	#1
Frequency Hz	Spectral Estimates g ² /Hz				
0.00	0.1756E+00	0.1355E+00	0.8452E-01	0.5638E-01	0.5779E-01
0.25	0.3484E+00	0.2630E+00	0.1546E+00	0.9600E-01	0.1020E+00
0.49	0.3031E+00	0.2234E+00	0.1234E+00	0.7082E-01	0.7965E-01
0.74	0.8869E-01	0.6248E-01	0.2990E-01	0.1233E-01	0.1330E-01
0.98	0.3919E-01	0.2739E-01	0.1217E-01	0.2934E-02	0.6869E-03
1.23	0.2607E-01	0.1816E-01	0.8285E-02	0.2104E-02	0.6153E-03
1.47	0.1948E-01	0.1351E-01	0.6253E-02	0.1619E-02	0.4608E-03
1.72	0.1319E-01	0.9293E-02	0.4189E-02	0.9821E-03	0.1383E-03
1.97	0.1070E-01	0.8125E-02	0.3576E-02	0.9515E-03	0.2682E-03
2.21	0.7864E-02	0.5926E-02	0.2619E-02	0.6591E-03	0.4533E-04
2.46	0.6769E-02	0.4774E-02	0.2277E-02	0.6783E-03	0.1557E-03
2.70	0.4902E-02	0.3419E-02	0.1664E-02	0.4623E-03	0.9871E-05
2.95	0.4232E-02	0.3035E-02	0.1529E-02	0.4953E-03	0.1107E-03
3.19	0.3025E-02	0.2137E-02	0.1078E-02	0.3304E-03	0.7333E-05
3.44	0.2794E-02	0.1916E-02	0.9845E-03	0.3442E-03	0.8418E-04
3.68	0.1897E-02	0.1310E-02	0.6509E-03	0.2210E-03	0.3268E-05
3.93	0.1732E-02	0.1247E-02	0.6240E-03	0.2390E-03	0.6154E-04
4.17	0.1145E-02	0.8543E-03	0.4151E-03	0.1536E-03	-0.1956E-05
4.42	0.1066E-02	0.8102E-03	0.4038E-03	0.1784E-03	0.4637E-04
4.67	0.6541E-03	0.5066E-03	0.2539E-03	0.1222E-03	-0.4624E-05
4.91	0.6434E-03	0.4970E-03	0.2618E-03	0.1453E-03	0.3762E-04
5.16	0.3502E-03	0.2829E-03	0.1463E-03	0.8709E-04	-0.2383E-05
5.40	0.4151E-03	0.3208E-03	0.1715E-03	0.1055E-03	0.3593E-04
5.65	0.2056E-03	0.1531E-03	0.8202E-04	0.7277E-04	0.2591E-06
5.89	0.2878E-03	0.2060E-03	0.1141E-03	0.1034E-03	0.3044E-04
6.14	0.1166E-03	0.8080E-04	0.4084E-04	0.7678E-04	-0.2050E-05
6.38	0.1869E-03	0.1372E-03	0.7445E-04	0.1322E-03	0.2660E-04
6.63	0.5700E-04	0.3073E-04	0.1691E-04	0.1087E-03	-0.1262E-05
6.88	0.1474E-03	0.9706E-04	0.5279E-04	0.1265E-03	0.2390E-04
7.12	0.2399E-04	0.2795E-04	0.5986E-05	0.1518E-03	0.3591E-05
7.37	0.1121E-03	0.9685E-04	0.3906E-04	0.2889E-03	0.3019E-04

TABLE 6.48
ACCELERATION VARIANCE SPECTRAL DENSITY
10.7 ft Significant Wave Height
50.5% Beam
 $C_v = 1.616$
46.20 ft LCG
Speed = 25 knots

Runs 386, 387, 388, 389

Accelerometer	#5	#4	#3	#2	#1
Frequency Hz	Spectral Estimates g^2/Hz				
0.00	0.2036E+00	0.1618E+00	0.1100E+00	0.7901E-01	0.7572E-01
0.25	0.4297E+00	0.3333E+00	0.2148E+00	0.1494E+00	0.1556E+00
0.49	0.4103E+00	0.3090E+00	0.1855E+00	0.1216E+00	0.1375E+00
0.74	0.1432E+00	0.1032E+00	0.5293E-01	0.2637E-01	0.2914E-01
0.98	0.6940E-01	0.4958E-01	0.2350E-01	0.7778E-02	0.3911E-02
1.23	0.4893E-01	0.3496E-01	0.1679E-01	0.5857E-02	0.3469E-02
1.47	0.3607E-01	0.2563E-01	0.1238E-01	0.4424E-02	0.2981E-02
1.72	0.2685E-01	0.1893E-01	0.8929E-02	0.3095E-02	0.2470E-02
1.97	0.2132E-01	0.1543E-01	0.7132E-02	0.2643E-02	0.2664E-02
2.21	0.1580E-01	0.1120E-01	0.5006E-02	0.1755E-02	0.2078E-02
2.46	0.1346E-01	0.9226E-02	0.4217E-02	0.1551E-02	0.1979E-02
2.70	0.1021E-01	0.6718E-02	0.3032E-02	0.1016E-02	0.1453E-02
2.95	0.8799E-02	0.5725E-02	0.2652E-02	0.9869E-03	0.1395E-02
3.19	0.6531E-02	0.4233E-02	0.1879E-02	0.6640E-03	0.1070E-02
3.44	0.5613E-02	0.3701E-02	0.1675E-02	0.6608E-03	0.1051E-02
3.68	0.4128E-02	0.2680E-02	0.1182E-02	0.4410E-03	0.7062E-03
3.93	0.3534E-02	0.2350E-02	0.1108E-02	0.4998E-03	0.5880E-03
4.17	0.2481E-02	0.1662E-02	0.7727E-03	0.3841E-03	0.3113E-03
4.42	0.2126E-02	0.1471E-02	0.7378E-03	0.4447E-03	0.2866E-03
4.67	0.1397E-02	0.9710E-03	0.4851E-03	0.3342E-03	0.1375E-03
4.91	0.1261E-02	0.8888E-03	0.4872E-03	0.3668E-03	0.1651E-03
5.16	0.7944E-03	0.5476E-03	0.3169E-03	0.2626E-03	0.6141E-04
5.40	0.7757E-03	0.5534E-03	0.3373E-03	0.3018E-03	0.9013E-04
5.65	0.4334E-03	0.3002E-03	0.1803E-03	0.2843E-03	0.6357E-05
5.89	0.4565E-03	0.3396E-03	0.1954E-03	0.3867E-03	0.5185E-04
6.14	0.2150E-03	0.1682E-03	0.8834E-04	0.3357E-03	0.3976E-05
6.38	0.2882E-03	0.2266E-03	0.1470E-03	0.3363E-03	0.4815E-04
6.63	0.1012E-03	0.8759E-04	0.7186E-04	0.2473E-03	0.6655E-06
6.88	0.1910E-03	0.1488E-03	0.1070E-03	0.4133E-03	0.4370E-04
7.12	0.8217E-04	0.3984E-04	0.2638E-04	0.8446E-03	0.1445E-04
7.37	0.2541E-03	0.1471E-03	0.8086E-04	0.1153E-02	0.6658E-04

TABLE 6.49
ACCELERATION VARIANCE SPECTRAL DENSITY
10.7 ft Significant Wave Height
50.5% Beam
 $C_v = 1.939$
46.20 ft LCG
Speed = 30 knots

Runs 390, 391, 392, 393

Accelerometer	#5	#4	#3	#2	#1
Frequency Hz	Spectral Estimates g^2/Hz				
0.00	0.1922E+00	0.1563E+00	0.1130E+00	0.8742E-01	0.8653E-01
0.25	0.4527E+00	0.3590E+00	0.2453E+00	0.1836E+00	0.1937E+00
0.49	0.4821E+00	0.3696E+00	0.2328E+00	0.1631E+00	0.1835E+00
0.74	0.1941E+00	0.1418E+00	0.7578E-01	0.4149E-01	0.4568E-01
0.98	0.9834E-01	0.7120E-01	0.3516E-01	0.1396E-01	0.9116E-02
1.23	0.7169E-01	0.5123E-01	0.2564E-01	0.1054E-01	0.7686E-02
1.47	0.5263E-01	0.3731E-01	0.1884E-01	0.8124E-02	0.6517E-02
1.72	0.3937E-01	0.2836E-01	0.1400E-01	0.6080E-02	0.5366E-02
1.97	0.3189E-01	0.2353E-01	0.1159E-01	0.5422E-02	0.5320E-02
2.21	0.2450E-01	0.1744E-01	0.8507E-02	0.4109E-02	0.4436E-02
2.46	0.2021E-01	0.1406E-01	0.6935E-02	0.3603E-02	0.4319E-02
2.70	0.1584E-01	0.1076E-01	0.5089E-02	0.2668E-02	0.3684E-02
2.95	0.1367E-01	0.9132E-02	0.4329E-02	0.2413E-02	0.3497E-02
3.19	0.1090E-01	0.7166E-02	0.3228E-02	0.1767E-02	0.2936E-02
3.44	0.9321E-02	0.6163E-02	0.2790E-02	0.1590E-02	0.2800E-02
3.68	0.7264E-02	0.4623E-02	0.2009E-02	0.1163E-02	0.2294E-02
3.93	0.6109E-02	0.3948E-02	0.1772E-02	0.1145E-02	0.2058E-02
4.17	0.4559E-02	0.2911E-02	0.1286E-02	0.9250E-03	0.1589E-02
4.42	0.3808E-02	0.2517E-02	0.1204E-02	0.9884E-03	0.1411E-02
4.67	0.2769E-02	0.1854E-02	0.8689E-03	0.8590E-03	0.1052E-02
4.91	0.2291E-02	0.1582E-02	0.8082E-03	0.9746E-03	0.9109E-03
5.16	0.1569E-02	0.1055E-02	0.5439E-03	0.9507E-03	0.6190E-03
5.40	0.1349E-02	0.9437E-03	0.5392E-03	0.1074E-02	0.5254E-03
5.65	0.9194E-03	0.6263E-03	0.3536E-03	0.1045E-02	0.3277E-03
5.89	0.8429E-03	0.6019E-03	0.3637E-03	0.1171E-02	0.3008E-03
6.14	0.4791E-03	0.3966E-03	0.2204E-03	0.1196E-02	0.1742E-03
6.38	0.4622E-03	0.4170E-03	0.2376E-03	0.1392E-02	0.1920E-03
6.63	0.3120E-03	0.2416E-03	0.1317E-03	0.1516E-02	0.1108E-03
6.88	0.3958E-03	0.3029E-03	0.1831E-03	0.1883E-02	0.1447E-03
7.12	0.2931E-03	0.2059E-03	0.1147E-03	0.2217E-02	0.9406E-04
7.37	0.4083E-03	0.2675E-03	0.1964E-03	0.2354E-02	0.1580E-03

TABLE 7.1
 1/3 OCTAVE RMS ACCELERATIONS
 2.9 ft Significant Wave Height
 13.7% Beam
 39.60 ft LCG
 $C_v = 0.646$
 Speed = 10 knots

Run 305

Accelerometer	#5	#4	#3	#2	#1
Center Frequency Hz	1/3 Octave RMS meters/sec ²				
0.099	0.190	0.157	0.096	0.045	0.068
0.125	0.301	0.248	0.153	0.068	0.098
0.157	0.388	0.320	0.198	0.087	0.123
0.198	0.436	0.359	0.222	0.098	0.138
0.250	0.489	0.403	0.249	0.110	0.155
0.315	0.549	0.453	0.279	0.123	0.174
0.397	0.598	0.493	0.306	0.133	0.175
0.500	0.668	0.550	0.342	0.148	0.192
0.630	0.524	0.433	0.270	0.118	0.143
0.794	0.348	0.290	0.183	0.083	0.080
1.000	0.161	0.139	0.088	0.044	0.024
1.260	0.113	0.092	0.057	0.027	0.021
1.587	0.087	0.079	0.039	0.022	0.016
2.000	0.125	0.132	0.044	0.031	0.027
2.520	0.092	0.083	0.025	0.031	0.025
3.175	0.073	0.062	0.022	0.020	0.018
4.000	0.060	0.058	0.014	0.017	0.015
5.040	0.064	0.061	0.017	0.020	0.016
6.350	0.070	0.068	0.018	0.029	0.018
8.000	0.087	0.080	0.024	0.116	0.022
10.079	0.096	0.095	0.025	0.069	0.024
12.699	0.099	0.098	0.026	0.040	0.024
16.000	0.044	0.046	0.012	0.012	0.011

TABLE 7.2
 1/3 OCTAVE RMS ACCELERATIONS
 2.9 ft Significant Wave Height
 13.7% Beam
 39.60 ft LCG
 $C_v = 0.970$
 Speed = 15 knots

Run 306

Accelerometer	#5	#4	#3	#2	#1
Center Frequency Hz	1/3 Octave RMS meters/sec ²				
0.099	0.157	0.134	0.089	0.051	0.049
0.125	0.284	0.240	0.160	0.090	0.086
0.157	0.377	0.318	0.212	0.119	0.114
0.198	0.424	0.357	0.238	0.134	0.128
0.250	0.476	0.401	0.267	0.150	0.144
0.315	0.534	0.450	0.300	0.168	0.161
0.397	0.637	0.534	0.355	0.196	0.189
0.500	0.723	0.605	0.402	0.222	0.214
0.630	0.595	0.498	0.329	0.180	0.171
0.794	0.447	0.374	0.246	0.131	0.118
1.000	0.264	0.229	0.151	0.077	0.032
1.260	0.210	0.182	0.120	0.061	0.036
1.587	0.131	0.119	0.072	0.038	0.023
2.000	0.133	0.137	0.056	0.037	0.028
2.520	0.093	0.081	0.029	0.033	0.027
3.175	0.071	0.055	0.026	0.022	0.020
4.000	0.051	0.045	0.016	0.017	0.016
5.040	0.058	0.050	0.016	0.023	0.017
6.350	0.066	0.055	0.016	0.033	0.019
8.000	0.085	0.066	0.027	0.137	0.024
10.079	0.091	0.078	0.023	0.066	0.026
12.699	0.091	0.075	0.022	0.034	0.026
16.000	0.040	0.032	0.010	0.014	0.012

TABLE 7.3
 1/3 OCTAVE RMS ACCELERATIONS
 2.9 ft Significant Wave Height
 13.7% Beam
 39.60 ft LCG
 $C_v = 1.293$
 Speed = 20 knots

Runs 307, 308

Accelerometer	#5	#4	#3	#2	#1
Center Frequency Hz	1/3 Octave RMS meters/sec ²				
0.099	0.113	0.098	0.071	0.050	0.044
0.125	0.238	0.204	0.145	0.098	0.093
0.157	0.323	0.277	0.196	0.132	0.126
0.198	0.363	0.311	0.220	0.148	0.141
0.250	0.407	0.349	0.247	0.167	0.158
0.315	0.457	0.391	0.278	0.187	0.178
0.397	0.607	0.517	0.360	0.235	0.233
0.500	0.699	0.596	0.413	0.269	0.268
0.630	0.614	0.523	0.358	0.226	0.227
0.794	0.519	0.442	0.295	0.175	0.176
1.000	0.340	0.295	0.191	0.095	0.055
1.260	0.300	0.258	0.168	0.084	0.050
1.587	0.223	0.187	0.117	0.060	0.038
2.000	0.184	0.165	0.079	0.044	0.034
2.520	0.116	0.103	0.046	0.035	0.025
3.175	0.073	0.076	0.031	0.022	0.019
4.000	0.066	0.070	0.023	0.020	0.015
5.040	0.070	0.073	0.021	0.028	0.015
6.350	0.072	0.083	0.024	0.061	0.017
8.000	0.087	0.087	0.030	0.116	0.020
10.079	0.099	0.102	0.028	0.067	0.023
12.699	0.108	0.111	0.031	0.038	0.022
16.000	0.044	0.053	0.014	0.011	0.009

TABLE 7.4
 1/3 OCTAVE RMS ACCELERATIONS
 2.9 ft Significant Wave Height
 13.7% Beam
 39.60 ft LCG
 $C_v = 1.616$
 Speed = 25 knots

Runs 309, 310

Accelerometer	#5	#4	#3	#2	#1
Center Frequency Hz	1/3 Octave RMS meters/sec ²				
0.099	0.085	0.073	0.054	0.039	0.036
0.125	0.195	0.166	0.119	0.085	0.085
0.157	0.268	0.228	0.163	0.116	0.116
0.198	0.300	0.255	0.183	0.130	0.130
0.250	0.337	0.287	0.205	0.146	0.146
0.315	0.379	0.322	0.231	0.164	0.164
0.397	0.573	0.485	0.338	0.228	0.236
0.500	0.671	0.567	0.393	0.264	0.275
0.630	0.644	0.543	0.371	0.237	0.246
0.794	0.606	0.510	0.343	0.206	0.208
1.000	0.418	0.353	0.237	0.125	0.088
1.260	0.365	0.307	0.207	0.108	0.072
1.587	0.281	0.239	0.157	0.081	0.053
2.000	0.203	0.190	0.105	0.058	0.040
2.520	0.121	0.113	0.059	0.040	0.031
3.175	0.070	0.069	0.032	0.026	0.020
4.000	0.067	0.067	0.030	0.027	0.017
5.040	0.061	0.068	0.025	0.029	0.018
6.350	0.062	0.072	0.025	0.072	0.019
8.000	0.083	0.088	0.034	0.186	0.026
10.079	0.082	0.094	0.029	0.057	0.027
12.699	0.092	0.100	0.031	0.043	0.026
16.000	0.036	0.046	0.014	0.014	0.011

TABLE 7.5
 1/3 OCTAVE RMS ACCELERATIONS
 2.9 ft Significant Wave Height
 13.7% Beam
 39.60 ft LCG
 $C_v = 1.939$
 Speed = 30 knots

Runs 311, 312

Accelerometer	#5	#4	#3	#2	#1
Center Frequency Hz	1/3 Octave RMS meters/sec ²				
0.099	0.051	0.045	0.034	0.025	0.024
0.125	0.159	0.137	0.098	0.069	0.067
0.157	0.223	0.192	0.137	0.096	0.094
0.198	0.251	0.215	0.153	0.107	0.106
0.250	0.281	0.241	0.172	0.120	0.119
0.315	0.316	0.271	0.193	0.135	0.133
0.397	0.592	0.504	0.347	0.223	0.222
0.500	0.704	0.599	0.411	0.263	0.261
0.630	0.783	0.665	0.451	0.271	0.257
0.794	0.839	0.712	0.479	0.275	0.245
1.000	0.702	0.598	0.404	0.223	0.141
1.260	0.577	0.493	0.333	0.185	0.107
1.587	0.484	0.417	0.274	0.145	0.084
2.000	0.365	0.308	0.194	0.104	0.061
2.520	0.227	0.176	0.113	0.070	0.042
3.175	0.116	0.098	0.057	0.039	0.025
4.000	0.100	0.079	0.043	0.035	0.021
5.040	0.088	0.072	0.033	0.042	0.020
6.350	0.078	0.076	0.024	0.063	0.022
8.000	0.106	0.095	0.036	0.179	0.027
10.079	0.113	0.104	0.035	0.117	0.033
12.699	0.114	0.108	0.027	0.036	0.023
16.000	0.049	0.050	0.012	0.013	0.011

TABLE 7.6
 1/3 OCTAVE RMS ACCELERATIONS
 2.9 ft Significant Wave Height
 13.7% Beam
 39.60 ft LCG
 $C_v = 2.263$
 Speed = 35 knots

Runs 313, 314

Accelerometer	#5	#4	#3	#2	#1
Center Frequency Hz	1/3 Octave RMS meters/sec ²				
0.099	0.029	0.028	0.020	0.018	0.018
0.125	0.142	0.121	0.088	0.062	0.058
0.157	0.203	0.172	0.125	0.087	0.082
0.198	0.228	0.194	0.140	0.097	0.092
0.250	0.256	0.217	0.157	0.109	0.103
0.315	0.287	0.244	0.176	0.123	0.116
0.397	0.635	0.537	0.377	0.242	0.220
0.500	0.762	0.643	0.451	0.289	0.261
0.630	0.953	0.805	0.557	0.336	0.284
0.794	1.092	0.924	0.635	0.371	0.294
1.000	1.006	0.853	0.585	0.327	0.204
1.260	0.841	0.714	0.495	0.280	0.153
1.587	0.668	0.572	0.391	0.217	0.119
2.000	0.503	0.431	0.282	0.152	0.084
2.520	0.300	0.259	0.167	0.099	0.058
3.175	0.141	0.119	0.073	0.049	0.029
4.000	0.111	0.095	0.058	0.044	0.022
5.040	0.100	0.081	0.049	0.064	0.021
6.350	0.076	0.081	0.026	0.080	0.024
8.000	0.109	0.105	0.038	0.220	0.029
10.079	0.105	0.103	0.032	0.084	0.029
12.699	0.105	0.104	0.028	0.046	0.027
16.000	0.055	0.047	0.015	0.016	0.012

TABLE 7.7
 1/3 OCTAVE RMS ACCELERATIONS
 4.6 ft Significant Wave Height
 21.7% Beam
 39.60 ft LCG
 $C_v = 0.646$
 Speed = 10 knots

Run 315

Accelerometer	#5	#4	#3	#2	#1
Center Frequency Hz	1/3 Octave RMS meters/sec ²				
0.099	0.321	0.266	0.169	0.096	0.133
0.125	0.463	0.383	0.241	0.126	0.173
0.157	0.582	0.481	0.302	0.154	0.209
0.198	0.654	0.540	0.339	0.173	0.235
0.250	0.734	0.606	0.381	0.194	0.264
0.315	0.824	0.681	0.427	0.218	0.296
0.397	0.844	0.698	0.437	0.211	0.277
0.500	0.930	0.769	0.481	0.229	0.298
0.630	0.718	0.595	0.373	0.176	0.217
0.794	0.458	0.383	0.243	0.112	0.107
1.000	0.256	0.218	0.141	0.069	0.034
1.260	0.195	0.162	0.103	0.047	0.034
1.587	0.162	0.138	0.082	0.040	0.029
2.000	0.169	0.163	0.072	0.041	0.035
2.520	0.108	0.090	0.044	0.034	0.025
3.175	0.084	0.065	0.034	0.023	0.020
4.000	0.068	0.051	0.021	0.021	0.015
5.040	0.078	0.057	0.019	0.025	0.016
6.350	0.083	0.065	0.022	0.034	0.019
8.000	0.105	0.084	0.029	0.126	0.022
10.079	0.107	0.082	0.028	0.067	0.023
12.699	0.114	0.085	0.028	0.039	0.023
16.000	0.051	0.037	0.012	0.014	0.009

TABLE 7.8
 1/3 OCTAVE RMS ACCELERATIONS
 4.6 ft Significant Wave Height
 21.7% Beam
 39.60 ft LCG
 $C_v = 0.646$
 Speed = 10 knots

Run 316

Accelerometer	#5	#4	#3	#2	#1
Center Frequency Hz	1/3 Octave RMS meters/sec ²				
0.099	0.307	0.253	0.160	0.089	0.126
0.125	0.456	0.374	0.235	0.120	0.166
0.157	0.578	0.475	0.297	0.147	0.202
0.198	0.649	0.533	0.334	0.165	0.227
0.250	0.728	0.598	0.375	0.186	0.255
0.315	0.817	0.672	0.421	0.208	0.286
0.397	0.853	0.702	0.439	0.207	0.270
0.500	0.944	0.776	0.485	0.226	0.292
0.630	0.734	0.606	0.380	0.176	0.213
0.794	0.478	0.399	0.253	0.116	0.107
1.000	0.258	0.219	0.143	0.069	0.030
1.260	0.174	0.150	0.094	0.043	0.031
1.587	0.136	0.121	0.069	0.034	0.023
2.000	0.145	0.140	0.056	0.032	0.028
2.520	0.090	0.079	0.031	0.027	0.023
3.175	0.075	0.067	0.028	0.020	0.018
4.000	0.060	0.061	0.017	0.018	0.013
5.040	0.064	0.066	0.018	0.025	0.016
6.350	0.070	0.078	0.020	0.034	0.017
8.000	0.091	0.084	0.029	0.127	0.022
10.079	0.097	0.094	0.027	0.066	0.024
12.699	0.102	0.104	0.028	0.036	0.023
16.000	0.047	0.047	0.013	0.013	0.011

TABLE 7.9
 1/3 OCTAVE RMS ACCELERATIONS
 4.6 ft Significant Wave Height
 21.7% Beam
 39.60 ft LCG
 $C_v = 0.970$
 Speed = 15 knots

Runs 317, 319

Accelerometer	#5	#4	#3	#2	#1
Center Frequency Hz	1/3 Octave RMS meters/sec ²				
0.099	0.347	0.294	0.202	0.128	0.126
0.125	0.551	0.465	0.318	0.196	0.189
0.157	0.712	0.601	0.410	0.250	0.240
0.198	0.800	0.675	0.460	0.281	0.270
0.250	0.897	0.757	0.516	0.315	0.303
0.315	1.007	0.850	0.580	0.354	0.340
0.397	1.116	0.939	0.636	0.380	0.362
0.500	1.249	1.051	0.711	0.423	0.402
0.630	1.024	0.861	0.581	0.338	0.310
0.794	0.771	0.649	0.434	0.239	0.192
1.000	0.531	0.451	0.303	0.156	0.040
1.260	0.394	0.336	0.225	0.116	0.049
1.587	0.321	0.275	0.178	0.090	0.039
2.000	0.285	0.261	0.145	0.077	0.046
2.520	0.186	0.160	0.099	0.058	0.028
3.175	0.139	0.118	0.075	0.045	0.025
4.000	0.097	0.087	0.049	0.037	0.017
5.040	0.080	0.078	0.036	0.036	0.017
6.350	0.081	0.073	0.026	0.048	0.020
8.000	0.106	0.090	0.033	0.155	0.026
10.079	0.097	0.091	0.026	0.066	0.024
12.699	0.102	0.096	0.027	0.033	0.022
16.000	0.047	0.045	0.014	0.013	0.010

TABLE 7.10
 1/3 OCTAVE RMS ACCELERATIONS
 4.6 ft Significant Wave Height
 21.7% Beam
 39.60 ft LCG
 $C_v = 1.293$
 Speed = 20 knots

Runs 320, 321

Accelerometer	#5	#4	#3	#2	#1
Center Frequency Hz	1/3 Octave RMS meters/sec ²				
0.099	0.310	0.268	0.197	0.143	0.129
0.125	0.541	0.466	0.339	0.240	0.223
0.157	0.714	0.615	0.445	0.314	0.294
0.198	0.802	0.690	0.499	0.353	0.330
0.250	0.900	0.774	0.561	0.396	0.371
0.315	1.010	0.869	0.629	0.445	0.416
0.397	1.210	1.035	0.738	0.508	0.485
0.500	1.373	1.173	0.835	0.573	0.548
0.630	1.184	1.008	0.707	0.467	0.437
0.794	0.986	0.833	0.570	0.345	0.298
1.000	0.756	0.638	0.430	0.224	0.060
1.260	0.627	0.528	0.359	0.194	0.070
1.587	0.522	0.437	0.296	0.161	0.049
2.000	0.465	0.373	0.240	0.133	0.050
2.520	0.327	0.271	0.178	0.102	0.031
3.175	0.217	0.182	0.124	0.078	0.031
4.000	0.156	0.136	0.084	0.060	0.016
5.040	0.120	0.105	0.059	0.057	0.018
6.350	0.091	0.094	0.036	0.078	0.023
8.000	0.101	0.099	0.033	0.155	0.028
10.079	0.108	0.107	0.028	0.080	0.027
12.699	0.097	0.109	0.026	0.034	0.022
16.000	0.046	0.049	0.014	0.012	0.011

TABLE 7.11
 1/3 OCTAVE RMS ACCELERATIONS
 4.6 ft Significant Wave Height
 21.7% Beam
 39.60 ft LCG
 $C_v = 1.616$
 Speed = 25 knots

Runs 322, 328

Accelerometer	#5	#4	#3	#2	#1
Center Frequency Hz	1/3 Octave RMS meters/sec ²				
0.099	0.238	0.207	0.159	0.124	0.112
0.125	0.426	0.366	0.274	0.209	0.198
0.157	0.565	0.483	0.361	0.273	0.261
0.198	0.634	0.542	0.405	0.307	0.293
0.250	0.711	0.609	0.455	0.344	0.329
0.315	0.798	0.683	0.511	0.387	0.370
0.397	1.047	0.888	0.643	0.463	0.460
0.500	1.205	1.020	0.735	0.526	0.526
0.630	1.099	0.927	0.654	0.444	0.443
0.794	0.987	0.829	0.568	0.352	0.341
1.000	0.752	0.632	0.424	0.220	0.107
1.260	0.682	0.574	0.386	0.204	0.087
1.587	0.548	0.457	0.307	0.169	0.062
2.000	0.457	0.373	0.243	0.139	0.059
2.520	0.299	0.246	0.168	0.101	0.045
3.175	0.174	0.143	0.101	0.067	0.035
4.000	0.116	0.105	0.064	0.047	0.023
5.040	0.083	0.085	0.044	0.041	0.024
6.350	0.077	0.089	0.037	0.095	0.024
8.000	0.110	0.110	0.044	0.223	0.031
10.079	0.092	0.102	0.033	0.066	0.028
12.699	0.100	0.105	0.035	0.037	0.027
16.000	0.044	0.046	0.016	0.013	0.012

TABLE 7.12
 1/3 OCTAVE RMS ACCELERATIONS
 4.6 ft Significant Wave Height
 21.7% Beam
 39.60 ft LCG
 $C_v = 1.939$
 Speed = 30 knots

Runs 329, 330, 331

Accelerometer	#5	#4	#3	#2	#1
Center Frequency Hz	1/3 Octave RMS meters/sec ²				
0.099	0.231	0.203	0.157	0.124	0.116
0.125	0.506	0.439	0.330	0.251	0.239
0.157	0.691	0.598	0.448	0.340	0.324
0.198	0.775	0.671	0.503	0.381	0.364
0.250	0.870	0.754	0.565	0.428	0.408
0.315	0.977	0.846	0.634	0.480	0.458
0.397	1.414	1.213	0.885	0.640	0.615
0.500	1.646	1.411	1.027	0.739	0.710
0.630	1.580	1.346	0.961	0.659	0.617
0.794	1.501	1.272	0.888	0.569	0.504
1.000	1.165	0.986	0.674	0.378	0.199
1.260	1.038	0.881	0.604	0.341	0.161
1.587	0.913	0.775	0.528	0.294	0.125
2.000	0.763	0.645	0.435	0.243	0.097
2.520	0.578	0.487	0.326	0.191	0.077
3.175	0.415	0.333	0.230	0.143	0.053
4.000	0.277	0.234	0.155	0.114	0.029
5.040	0.188	0.152	0.097	0.094	0.029
6.350	0.119	0.108	0.054	0.105	0.032
8.000	0.144	0.126	0.056	0.286	0.040
10.079	0.133	0.125	0.038	0.111	0.035
12.699	0.114	0.118	0.029	0.033	0.023
16.000	0.045	0.049	0.016	0.014	0.011

TABLE 7.13
 1/3 OCTAVE RMS ACCELERATIONS
 10.7 ft Significant Wave Height
 50.5% Beam
 39.60 ft LCG
 $C_v = 0.646$
 Speed = 10 knots

Runs 332, 333

Accelerometer	#5	#4	#3	#2	#1
Center Frequency Hz	1/3 Octave RMS meters/sec ²				
0.099	0.596	0.501	0.344	0.244	0.302
0.125	0.784	0.655	0.437	0.286	0.358
0.157	0.955	0.795	0.524	0.329	0.415
0.198	1.072	0.893	0.589	0.370	0.466
0.250	1.203	1.002	0.661	0.415	0.523
0.315	1.350	1.125	0.742	0.466	0.587
0.397	1.305	1.083	0.702	0.403	0.502
0.500	1.416	1.174	0.757	0.421	0.523
0.630	1.107	0.918	0.593	0.319	0.373
0.794	0.747	0.622	0.404	0.194	0.156
1.000	0.564	0.474	0.312	0.152	0.064
1.260	0.465	0.389	0.257	0.125	0.060
1.587	0.401	0.339	0.224	0.112	0.050
2.000	0.348	0.313	0.195	0.100	0.050
2.520	0.281	0.242	0.154	0.086	0.046
3.175	0.216	0.184	0.119	0.069	0.040
4.000	0.146	0.124	0.080	0.054	0.027
5.040	0.103	0.094	0.052	0.049	0.024
6.350	0.078	0.079	0.033	0.062	0.026
8.000	0.117	0.102	0.036	0.191	0.038
10.079	0.095	0.096	0.027	0.072	0.026
12.699	0.087	0.095	0.026	0.032	0.022
16.000	0.043	0.047	0.012	0.012	0.010

TABLE 7.14
 1/3 OCTAVE RMS ACCELERATIONS
 10.7 ft Significant Wave Height
 50.5% Beam
 39.60 ft LCG
 $C_v = 0.970$
 Speed = 15 knots

Runs 334, 335, 336

Accelerometer	#5	#4	#3	#2	#1
Center Frequency Hz	1/3 Octave RMS meters/sec ²				
0.099	0.678	0.584	0.430	0.323	0.329
0.125	0.930	0.797	0.575	0.412	0.410
0.157	1.150	0.984	0.705	0.495	0.487
0.198	1.291	1.104	0.791	0.555	0.547
0.250	1.449	1.239	0.888	0.623	0.614
0.315	1.626	1.391	0.997	0.700	0.689
0.397	1.662	1.415	0.998	0.668	0.639
0.500	1.829	1.554	1.092	0.722	0.685
0.630	1.503	1.274	0.886	0.562	0.511
0.794	1.156	0.974	0.661	0.375	0.284
1.000	0.956	0.806	0.541	0.278	0.131
1.260	0.853	0.720	0.490	0.260	0.132
1.587	0.785	0.660	0.452	0.245	0.123
2.000	0.720	0.596	0.405	0.227	0.116
2.520	0.642	0.546	0.378	0.224	0.097
3.175	0.543	0.457	0.318	0.211	0.092
4.000	0.429	0.360	0.245	0.181	0.058
5.040	0.315	0.261	0.175	0.167	0.039
6.350	0.212	0.178	0.108	0.208	0.049
8.000	0.222	0.170	0.096	0.480	0.083
10.079	0.145	0.134	0.060	0.142	0.042
12.699	0.097	0.101	0.033	0.040	0.021
16.000	0.042	0.042	0.016	0.013	0.010

TABLE 7.15
 1/3 OCTAVE RMS ACCELERATIONS
 10.7 ft Significant Wave Height
 50.5% Beam
 39.60 ft LCG
 $C_v = 1.293$
 Speed = 20 knots

Runs 337, 338, 339

Accelerometer	#5	#4	#3	#2	#1
Center Frequency Hz	1/3 Octave RMS meters/sec ²				
0.099	0.742	0.656	0.516	0.412	0.374
0.125	1.049	0.921	0.710	0.553	0.503
0.157	1.311	1.148	0.880	0.678	0.617
0.198	1.471	1.289	0.987	0.761	0.692
0.250	1.651	1.446	1.108	0.854	0.777
0.315	1.854	1.624	1.244	0.959	0.872
0.397	1.970	1.713	1.285	0.957	0.867
0.500	2.187	1.898	1.417	1.047	0.948
0.630	1.869	1.614	1.185	0.841	0.728
0.794	1.554	1.330	0.946	0.613	0.454
1.000	1.367	1.169	0.818	0.494	0.224
1.260	1.291	1.101	0.765	0.459	0.190
1.587	1.284	1.098	0.765	0.454	0.150
2.000	1.247	1.074	0.772	0.478	0.264
2.520	1.094	0.946	0.678	0.433	0.353
3.175	0.919	0.772	0.527	0.402	0.231
4.000	0.760	0.633	0.441	0.338	0.156
5.040	0.549	0.461	0.297	0.300	0.162
6.350	0.380	0.314	0.183	0.385	0.103
8.000	0.361	0.282	0.154	0.708	0.143
10.079	0.208	0.182	0.080	0.209	0.060
12.699	0.094	0.111	0.025	0.055	0.019
16.000	0.043	0.053	0.014	0.012	0.011

TABLE 7.16
 1/3 OCTAVE RMS ACCELERATIONS
 10.7 ft Significant Wave Height
 50.5% Beam
 39.60 ft LCG
 $C_v = 1.616$
 Speed = 25 knots

Runs 340, 341, 342, 344

Accelerometer	#5	#4	#3	#2	#1
Center Frequency Hz	1/3 Octave RMS meters/sec ²				
0.099	0.732	0.653	0.528	0.438	0.403
0.125	1.074	0.951	0.752	0.607	0.559
0.157	1.359	1.200	0.943	0.754	0.694
0.198	1.525	1.346	1.058	0.846	0.779
0.250	1.712	1.511	1.188	0.950	0.874
0.315	1.922	1.696	1.333	1.066	0.981
0.397	2.157	1.886	1.442	1.110	1.017
0.500	2.421	2.113	1.607	1.227	1.122
0.630	2.119	1.837	1.367	1.000	0.879
0.794	1.817	1.560	1.119	0.747	0.580
1.000	1.514	1.295	0.909	0.551	0.270
1.260	1.440	1.229	0.865	0.532	0.280
1.587	1.399	1.194	0.842	0.520	0.247
2.000	1.342	1.148	0.817	0.511	0.220
2.520	1.217	1.033	0.734	0.473	0.202
3.175	1.053	0.885	0.617	0.449	0.162
4.000	0.855	0.720	0.502	0.388	0.115
5.040	0.640	0.537	0.347	0.369	0.080
6.350	0.433	0.357	0.213	0.443	0.088
8.000	0.447	0.341	0.174	0.782	0.128
10.079	0.249	0.211	0.092	0.193	0.054
12.699	0.106	0.106	0.034	0.054	0.020
16.000	0.048	0.046	0.017	0.014	0.012

TABLE 7.17
 1/3 OCTAVE RMS ACCELERATIONS
 10.7 ft Significant Wave Height
 50.5% Beam
 39.60 ft LCG
 $C_V = 1.939$
 Speed = 30 knots

Runs 345, 346, 347, 348

Accelerometer	#5	#4	#3	#2	#1
Center Frequency Hz	1/3 Octave RMS meters/sec ²				
0.099	0.745	0.674	0.565	0.484	0.443
0.125	1.121	1.004	0.822	0.689	0.631
0.157	1.427	1.275	1.038	0.863	0.790
0.198	1.602	1.432	1.165	0.968	0.887
0.250	1.798	1.607	1.307	1.087	0.995
0.315	2.019	1.804	1.467	1.220	1.117
0.397	2.358	2.083	1.644	1.316	1.194
0.500	2.666	2.350	1.845	1.466	1.327
0.630	2.428	2.126	1.630	1.243	1.079
0.794	2.210	1.920	1.426	1.017	0.795
1.000	1.964	1.710	1.257	0.860	0.524
1.260	1.892	1.643	1.217	0.855	0.545
1.587	1.822	1.573	1.173	0.845	0.550
2.000	1.735	1.494	1.115	0.831	0.548
2.520	1.603	1.386	1.033	0.818	0.519
3.175	1.416	1.232	0.918	0.810	0.462
4.000	1.206	1.041	0.762	0.809	0.372
5.040	0.972	0.818	0.565	0.847	0.262
6.350	0.719	0.599	0.357	1.166	0.135
8.000	0.738	0.585	0.389	1.386	0.186
10.079	0.402	0.334	0.163	0.232	0.092
12.699	0.165	0.137	0.043	0.018	0.016
16.000	0.058	0.053	0.017	0.014	0.012

TABLE 7.18
 1/3 OCTAVE RMS ACCELERATIONS
 2.9 ft Significant Wave Height
 13.7% Beam
 42.90 ft LCG
 $C_v = 0.646$
 Speed = 10 knots

Run 233

Accelerometer	#5	#4	#3	#2	#1
Center Frequency Hz	1/3 Octave RMS meters/sec ²				
0.099	0.170	0.139	0.085	0.040	0.067
0.125	0.265	0.217	0.134	0.060	0.095
0.157	0.341	0.279	0.172	0.075	0.119
0.198	0.382	0.313	0.193	0.085	0.134
0.250	0.429	0.352	0.217	0.095	0.150
0.315	0.482	0.395	0.243	0.106	0.168
0.397	0.522	0.429	0.265	0.114	0.169
0.500	0.582	0.478	0.296	0.126	0.185
0.630	0.456	0.376	0.234	0.101	0.138
0.794	0.301	0.251	0.159	0.070	0.077
1.000	0.128	0.111	0.070	0.034	0.022
1.260	0.076	0.069	0.040	0.018	0.017
1.587	0.069	0.064	0.027	0.016	0.014
2.000	0.108	0.104	0.034	0.023	0.022
2.520	0.065	0.067	0.017	0.022	0.017
3.175	0.081	0.062	0.020	0.023	0.020
4.000	0.054	0.051	0.015	0.014	0.013
5.040	0.067	0.070	0.017	0.021	0.016
6.350	0.067	0.066	0.017	0.059	0.018
8.000	0.081	0.081	0.049	0.253	0.033
10.079	0.085	0.093	0.027	0.090	0.027
12.699	0.088	0.101	0.027	0.037	0.025
16.000	0.041	0.042	0.011	0.011	0.012

TABLE 7.19
 1/3 OCTAVE RMS ACCELERATIONS
 2.9 ft Significant Wave Height
 13.7% Beam
 42.90 ft LCG
 $C_v = 0.970$
 Speed = 15 knots

Run 234

Accelerometer	#5	#4	#3	#2	#1
Center Frequency Hz	1/3 Octave RMS meters/sec ²				
0.099	0.158	0.126	0.084	0.047	0.051
0.125	0.276	0.225	0.150	0.082	0.090
0.157	0.364	0.299	0.199	0.109	0.120
0.198	0.408	0.335	0.224	0.122	0.134
0.250	0.458	0.376	0.251	0.137	0.151
0.315	0.514	0.422	0.282	0.154	0.169
0.397	0.607	0.501	0.333	0.180	0.200
0.500	0.688	0.568	0.377	0.203	0.226
0.630	0.558	0.461	0.305	0.163	0.181
0.794	0.404	0.335	0.220	0.115	0.125
1.000	0.201	0.171	0.111	0.053	0.025
1.260	0.175	0.145	0.094	0.046	0.034
1.587	0.121	0.108	0.058	0.030	0.024
2.000	0.127	0.130	0.048	0.032	0.025
2.520	0.089	0.069	0.027	0.026	0.018
3.175	0.091	0.060	0.028	0.026	0.023
4.000	0.060	0.053	0.019	0.021	0.014
5.040	0.076	0.064	0.023	0.025	0.017
6.350	0.080	0.065	0.023	0.051	0.018
8.000	0.101	0.072	0.044	0.239	0.032
10.079	0.106	0.081	0.029	0.072	0.026
12.699	0.105	0.091	0.033	0.044	0.024
16.000	0.050	0.039	0.015	0.014	0.012

TABLE 7.20
 1/3 OCTAVE RMS ACCELERATIONS
 2.9 ft Significant Wave Height
 13.7% Beam
 42.90 ft LCG
 $C_v = 1.293$
 Speed = 20 knots

Runs 235, 236

Accelerometer	#5	#4	#3	#2	#1
Center Frequency Hz	1/3 Octave RMS meters/sec ²				
0.099	0.104	0.090	0.065		0.043
0.125	0.222	0.190	0.136		0.095
0.157	0.302	0.258	0.184		0.130
0.198	0.339	0.290	0.207		0.146
0.250	0.381	0.325	0.232		0.164
0.315	0.427	0.365	0.260		0.184
0.397	0.567	0.481	0.338		0.248
0.500	0.654	0.554	0.388		0.286
0.630	0.566	0.479	0.331		0.244
0.794	0.466	0.392	0.265		0.193
1.000	0.273	0.229	0.150		0.055
1.260	0.244	0.205	0.133		0.048
1.587	0.183	0.163	0.094		0.035
2.000	0.159	0.153	0.069		0.032
2.520	0.100	0.082	0.040		0.021
3.175	0.093	0.066	0.031		0.024
4.000	0.066	0.059	0.021		0.016
5.040	0.080	0.076	0.022		0.017
6.350	0.080	0.074	0.023		0.020
8.000	0.095	0.080	0.029		0.025
10.079	0.107	0.095	0.030		0.031
12.699	0.113	0.105	0.031		0.026
16.000	0.051	0.044	0.015		0.013

TABLE 7.21
 1/3 OCTAVE RMS ACCELERATIONS
 2.9 ft Significant Wave Height
 13.7% Beam
 42.90 ft LCG
 $C_V = 1.616$
 Speed = 25 knots

Runs 237, 241

Accelerometer	#5	#4	#3	#2	#1
Center Frequency Hz	1/3 Octave RMS meters/sec ²				
0.099	0.081	0.071	0.052	0.037	0.037
0.125	0.179	0.154	0.111	0.081	0.090
0.157	0.244	0.211	0.152	0.111	0.124
0.198	0.274	0.236	0.170	0.124	0.139
0.250	0.308	0.265	0.191	0.140	0.156
0.315	0.345	0.298	0.215	0.157	0.176
0.397	0.510	0.433	0.303	0.213	0.256
0.500	0.595	0.504	0.352	0.246	0.298
0.630	0.562	0.472	0.324	0.217	0.267
0.794	0.522	0.434	0.292	0.184	0.228
1.000	0.365	0.307	0.202	0.110	0.098
1.260	0.316	0.269	0.174	0.090	0.078
1.587	0.237	0.204	0.125	0.068	0.053
2.000	0.188	0.169	0.084	0.049	0.039
2.520	0.112	0.094	0.048	0.032	0.029
3.175	0.075	0.074	0.033	0.028	0.024
4.000	0.067	0.072	0.028	0.030	0.020
5.040	0.075	0.080	0.025	0.026	0.021
6.350	0.076	0.079	0.023	0.099	0.023
8.000	0.098	0.097	0.042	0.268	0.034
10.079	0.096	0.106	0.030	0.082	0.029
12.699	0.103	0.119	0.032	0.045	0.028
16.000	0.043	0.052	0.015	0.013	0.011

TABLE 7.22
 1/3 OCTAVE RMS ACCELERATIONS
 2.9 ft Significant Wave Height
 13.7% Beam
 42.90 ft LCG
 $C_V = 1.939$
 Speed = 30 knots

Runs 242, 243

Accelerometer	#5	#4	#3	#2	#1
Center Frequency Hz	1/3 Octave RMS meters/sec ²				
0.099	0.056	0.049	0.037	0.029	0.026
0.125	0.144	0.124	0.090	0.068	0.074
0.157	0.200	0.172	0.125	0.094	0.103
0.198	0.225	0.193	0.140	0.105	0.115
0.250	0.253	0.217	0.157	0.118	0.130
0.315	0.283	0.243	0.176	0.133	0.145
0.397	0.494	0.417	0.289	0.200	0.236
0.500	0.584	0.493	0.340	0.234	0.278
0.630	0.621	0.523	0.352	0.224	0.268
0.794	0.646	0.543	0.360	0.213	0.250
1.000	0.534	0.453	0.305	0.167	0.142
1.260	0.466	0.395	0.266	0.145	0.120
1.587	0.362	0.300	0.196	0.099	0.084
2.000	0.267	0.222	0.133	0.069	0.056
2.520	0.161	0.124	0.077	0.044	0.034
3.175	0.094	0.078	0.042	0.024	0.023
4.000	0.080	0.072	0.036	0.032	0.019
5.040	0.072	0.074	0.027	0.037	0.019
6.350	0.070	0.065	0.021	0.072	0.020
8.000	0.087	0.071	0.033	0.172	0.027
10.079	0.090	0.081	0.032	0.096	0.043
12.699	0.095	0.090	0.029	0.034	0.024
16.000	0.042	0.042	0.011	0.013	0.012

TABLE 7.23
 1/3 OCTAVE RMS ACCELERATIONS
 2.9 ft Significant Wave Height
 13.7% Beam
 42.90 ft LCG
 $C_V = 2.263$
 Speed = 35 knots

Runs 244, 245

Accelerometer	#5	#4	#3	#2	#1
Center Frequency Hz	1/3 Octave RMS meters/sec ²				
0.099	0.040	0.036	0.029	0.023	0.020
0.125	0.134	0.115	0.086	0.065	0.066
0.157	0.188	0.162	0.120	0.090	0.093
0.198	0.211	0.182	0.135	0.101	0.104
0.250	0.237	0.204	0.151	0.114	0.117
0.315	0.266	0.229	0.170	0.127	0.131
0.397	0.522	0.447	0.313	0.213	0.228
0.500	0.623	0.532	0.372	0.252	0.270
0.630	0.730	0.622	0.425	0.264	0.276
0.794	0.809	0.688	0.465	0.271	0.274
1.000	0.711	0.607	0.411	0.225	0.173
1.260	0.584	0.503	0.341	0.191	0.143
1.587	0.518	0.439	0.290	0.151	0.123
2.000	0.388	0.321	0.209	0.107	0.078
2.520	0.229	0.183	0.120	0.066	0.045
3.175	0.118	0.103	0.058	0.039	0.025
4.000	0.091	0.090	0.041	0.034	0.019
5.040	0.098	0.093	0.039	0.050	0.020
6.350	0.093	0.085	0.028	0.077	0.022
8.000	0.112	0.103	0.041	0.223	0.030
10.079	0.119	0.108	0.034	0.097	0.031
12.699	0.127	0.117	0.034	0.040	0.027
16.000	0.056	0.057	0.015	0.010	0.013

TABLE 7.24
 1/3 OCTAVE RMS ACCELERATIONS
 4.6 ft Significant Wave Height
 21.7% Beam
 42.90 ft LCG
 $C_V = 0.646$
 Speed = 10 knots

Run 246

Accelerometer	#5	#4	#3	#2	#1
Center Frequency Hz	1/3 Octave RMS meters/sec ²				
0.099	0.285	0.237	0.151	0.090	0.126
0.125	0.418	0.346	0.218	0.117	0.164
0.157	0.529	0.437	0.274	0.142	0.199
0.198	0.594	0.491	0.307	0.159	0.223
0.250	0.666	0.551	0.345	0.178	0.251
0.315	0.748	0.618	0.387	0.200	0.281
0.397	0.776	0.641	0.400	0.192	0.264
0.500	0.857	0.708	0.441	0.208	0.284
0.630	0.660	0.547	0.341	0.159	0.208
0.794	0.415	0.347	0.219	0.098	0.103
1.000	0.200	0.171	0.110	0.052	0.030
1.260	0.149	0.129	0.079	0.036	0.030
1.587	0.121	0.110	0.061	0.033	0.022
2.000	0.118	0.123	0.052	0.032	0.026
2.520	0.081	0.068	0.027	0.023	0.017
3.175	0.071	0.068	0.028	0.020	0.019
4.000	0.061	0.062	0.017	0.017	0.015
5.040	0.071	0.066	0.019	0.022	0.016
6.350	0.070	0.062	0.019	0.059	0.018
8.000	0.089	0.083	0.038	0.216	0.030
10.079	0.093	0.091	0.026	0.077	0.027
12.699	0.096	0.092	0.029	0.033	0.024
16.000	0.038	0.041	0.013	0.013	0.011

TABLE 7.25
 1/3 OCTAVE RMS ACCELERATIONS
 4.6 ft Significant Wave Height
 21.7% Beam
 42.90 ft LCG
 $C_V = 0.970$
 Speed = 15 knots

Runs 247, 248

Accelerometer	#5	#4	#3	#2	#1
Center Frequency Hz	1/3 Octave RMS meters/sec ²				
0.099	0.329	0.279	0.192	0.124	0.130
0.125	0.519	0.439	0.300	0.188	0.194
0.157	0.670	0.566	0.385	0.239	0.247
0.198	0.752	0.635	0.432	0.269	0.277
0.250	0.844	0.713	0.485	0.301	0.311
0.315	0.947	0.800	0.545	0.338	0.349
0.397	1.046	0.881	0.596	0.362	0.374
0.500	1.170	0.986	0.665	0.402	0.416
0.630	0.948	0.799	0.536	0.318	0.321
0.794	0.691	0.583	0.387	0.216	0.202
1.000	0.435	0.370	0.244	0.122	0.043
1.260	0.301	0.254	0.166	0.085	0.051
1.587	0.214	0.182	0.116	0.058	0.037
2.000	0.165	0.145	0.088	0.045	0.031
2.520	0.117	0.101	0.057	0.037	0.025
3.175	0.098	0.088	0.049	0.032	0.027
4.000	0.062	0.061	0.030	0.025	0.019
5.040	0.071	0.067	0.023	0.028	0.019
6.350	0.067	0.070	0.022	0.043	0.021
8.000	0.087	0.081	0.035	0.166	0.029
10.079	0.084	0.089	0.030	0.061	0.032
12.699	0.090	0.098	0.032	0.037	0.025
16.000	0.039	0.041	0.015	0.013	0.011

TABLE 7.26
 1/3 OCTAVE RMS ACCELERATIONS
 4.6 ft Significant Wave Height
 21.7% Beam
 42.90 ft LCG
 $C_v = 1.293$
 Speed = 20 knots

Runs 263, 264

Accelerometer	#5	#4	#3	#2	#1
Center Frequency Hz	1/3 Octave RMS meters/sec ²				
0.099	0.303	0.264	0.195	0.126	0.137
0.125	0.518	0.449	0.326	0.207	0.234
0.157	0.681	0.589	0.427	0.270	0.307
0.198	0.764	0.661	0.479	0.303	0.345
0.250	0.858	0.742	0.538	0.341	0.387
0.315	0.963	0.832	0.604	0.382	0.434
0.397	1.136	0.976	0.697	0.433	0.508
0.500	1.287	1.105	0.786	0.486	0.575
0.630	1.088	0.928	0.651	0.390	0.461
0.794	0.872	0.735	0.501	0.275	0.320
1.000	0.627	0.523	0.347	0.147	0.068
1.260	0.510	0.426	0.287	0.128	0.071
1.587	0.396	0.330	0.223	0.100	0.050
2.000	0.328	0.268	0.170	0.082	0.047
2.520	0.234	0.195	0.122	0.061	0.036
3.175	0.158	0.133	0.088	0.048	0.034
4.000	0.105	0.097	0.056	0.032	0.019
5.040	0.084	0.082	0.038	0.036	0.018
6.350	0.079	0.077	0.025	0.055	0.019
8.000	0.096	0.098	0.030	0.117	0.026
10.079	0.095	0.103	0.028	0.061	0.034
12.699	0.099	0.113	0.029	0.032	0.023
16.000	0.045	0.051	0.014	0.013	0.012

TABLE 7.27
 1/3 OCTAVE RMS ACCELERATIONS
 4.6 ft Significant Wave Height
 21.7% Beam
 42.90 ft LCG
 $C_v = 1.616$
 Speed = 25 knots

Runs 265, 267

Accelerometer	#5	#4	#3	#2	#1
Center Frequency Hz	1/3 Octave RMS meters/sec ²				
0.099	0.259	0.228	0.178	0.105	0.139
0.125	0.499	0.434	0.330	0.190	0.264
0.157	0.670	0.582	0.440	0.252	0.354
0.198	0.752	0.653	0.494	0.283	0.397
0.250	0.844	0.733	0.555	0.317	0.446
0.315	0.947	0.823	0.623	0.356	0.500
0.397	1.218	1.047	0.772	0.428	0.624
0.500	1.398	1.200	0.881	0.486	0.713
0.630	1.245	1.060	0.760	0.400	0.589
0.794	1.081	0.910	0.628	0.300	0.438
1.000	0.792	0.664	0.439	0.160	0.118
1.260	0.681	0.572	0.381	0.143	0.107
1.587	0.557	0.468	0.313	0.116	0.073
2.000	0.444	0.374	0.242	0.093	0.061
2.520	0.319	0.272	0.176	0.072	0.041
3.175	0.207	0.182	0.121	0.053	0.036
4.000	0.142	0.121	0.073	0.040	0.016
5.040	0.099	0.092	0.051	0.037	0.017
6.350	0.082	0.075	0.033	0.063	0.023
8.000	0.109	0.093	0.042	0.175	0.034
10.079	0.094	0.091	0.023	0.048	0.027
12.699	0.104	0.099	0.024	0.035	0.021
16.000	0.046	0.042	0.014	0.015	0.011

TABLE 7.28
 1/3 OCTAVE RMS ACCELERATIONS
 4.6 ft Significant Wave Height
 21.7% Beam
 42.90 ft LCG
 $C_V = 1.939$
 Speed = 30 knots

Runs 271, 272, 273

Accelerometer	#5	#4	#3	#2	#1
Center Frequency Hz	1/3 Octave RMS meters/sec ²				
0.099	0.211	0.188	0.146	0.100	0.115
0.125	0.435	0.381	0.289	0.195	0.238
0.157	0.589	0.516	0.390	0.262	0.323
0.198	0.661	0.579	0.438	0.294	0.363
0.250	0.742	0.650	0.491	0.330	0.408
0.315	0.833	0.729	0.551	0.370	0.457
0.397	1.181	1.020	0.746	0.481	0.620
0.500	1.372	1.183	0.863	0.553	0.717
0.630	1.287	1.102	0.783	0.478	0.624
0.794	1.189	1.008	0.694	0.390	0.510
1.000	0.862	0.725	0.482	0.213	0.185
1.260	0.745	0.625	0.421	0.187	0.143
1.587	0.611	0.516	0.346	0.153	0.109
2.000	0.487	0.419	0.270	0.121	0.085
2.520	0.338	0.287	0.189	0.089	0.062
3.175	0.222	0.176	0.119	0.063	0.046
4.000	0.136	0.115	0.071	0.045	0.032
5.040	0.105	0.103	0.056	0.050	0.030
6.350	0.085	0.089	0.037	0.073	0.032
8.000	0.113	0.110	0.045	0.183	0.039
10.079	0.107	0.104	0.034	0.073	0.048
12.699	0.111	0.116	0.031	0.038	0.029
16.000	0.048	0.054	0.015	0.017	0.012

TABLE 7.29
 1/3 OCTAVE RMS ACCELERATIONS
 10.7 ft Significant Wave Height
 50.5% Beam
 42.90 ft LCG
 $C_v = 0.646$
 Speed = 10 knots

Runs 274, 275

Accelerometer	#5	#4	#3	#2	#1
Center Frequency Hz	1/3 Octave RMS meters/sec ²				
0.099	0.534	0.452	0.310	0.193	0.290
0.125	0.694	0.582	0.388	0.222	0.340
0.157	0.840	0.703	0.462	0.253	0.392
0.198	0.943	0.789	0.519	0.284	0.440
0.250	1.059	0.886	0.582	0.319	0.494
0.315	1.188	0.994	0.654	0.358	0.554
0.397	1.142	0.951	0.613	0.304	0.470
0.500	1.237	1.029	0.659	0.316	0.488
0.630	0.955	0.795	0.510	0.238	0.349
0.794	0.615	0.512	0.332	0.139	0.150
1.000	0.403	0.338	0.226	0.099	0.064
1.260	0.315	0.263	0.175	0.076	0.059
1.587	0.268	0.225	0.149	0.066	0.050
2.000	0.241	0.218	0.129	0.062	0.049
2.520	0.179	0.160	0.100	0.054	0.042
3.175	0.153	0.130	0.083	0.042	0.038
4.000	0.112	0.099	0.065	0.036	0.032
5.040	0.093	0.090	0.052	0.036	0.028
6.350	0.081	0.082	0.038	0.047	0.026
8.000	0.100	0.092	0.044	0.143	0.030
10.079	0.095	0.096	0.038	0.059	0.032
12.699	0.098	0.103	0.037	0.036	0.026
16.000	0.045	0.047	0.017	0.014	0.012

TABLE 7.30
 1/3 OCTAVE RMS ACCELERATIONS
 10.7 ft Significant Wave Height
 50.5% Beam
 42.90 ft LCG
 $C_v = 0.970$
 Speed = 15 knots

Runs 276, 277, 278

Accelerometer	#5	#4	#3	#2	#1
Center Frequency Hz	1/3 Octave RMS meters/sec ²				
0.099	0.635	0.550	0.407	0.265	0.332
0.125	0.865	0.744	0.538	0.335	0.415
0.157	1.068	0.916	0.657	0.400	0.495
0.198	1.199	1.028	0.737	0.449	0.556
0.250	1.345	1.154	0.828	0.504	0.624
0.315	1.510	1.295	0.929	0.566	0.700
0.397	1.531	1.304	0.918	0.533	0.655
0.500	1.681	1.430	1.001	0.573	0.704
0.630	1.365	1.156	0.802	0.442	0.527
0.794	1.015	0.853	0.578	0.283	0.298
1.000	0.782	0.657	0.444	0.197	0.123
1.260	0.665	0.559	0.378	0.168	0.120
1.587	0.599	0.508	0.345	0.154	0.105
2.000	0.538	0.470	0.319	0.150	0.103
2.520	0.460	0.392	0.278	0.139	0.091
3.175	0.393	0.327	0.232	0.127	0.080
4.000	0.304	0.254	0.178	0.111	0.043
5.040	0.212	0.182	0.122	0.095	0.030
6.350	0.146	0.129	0.076	0.137	0.041
8.000	0.148	0.129	0.071	0.276	0.060
10.079	0.113	0.111	0.049	0.107	0.033
12.699	0.105	0.108	0.029	0.040	0.023
16.000	0.048	0.051	0.014	0.012	0.011

TABLE 7.31
 1/3 OCTAVE RMS ACCELERATIONS
 10.7 ft Significant Wave Height
 50.5% Beam
 42.90 ft LCG
 $C_v = 1.293$
 Speed = 20 knots

Runs 290, 291, 292

Accelerometer	#5	#4	#3	#2	#1
Center Frequency Hz	1/3 Octave RMS meters/sec ²				
0.099	0.678	0.848	0.469	0.379	0.364
0.125	0.965	1.008	0.648	0.511	0.494
0.157	1.208	1.170	0.804	0.628	0.609
0.198	1.356	1.313	0.903	0.705	0.683
0.250	1.522	1.474	1.014	0.791	0.767
0.315	1.709	1.654	1.138	0.888	0.861
0.397	1.808	1.607	1.168	0.885	0.868
0.500	2.005	1.745	1.286	0.967	0.951
0.630	1.667	1.446	1.043	0.753	0.727
0.794	1.305	1.124	0.773	0.497	0.441
1.000	1.025	0.875	0.590	0.319	0.132
1.260	0.919	0.778	0.530	0.292	0.142
1.587	0.844	0.712	0.483	0.267	0.127
2.000	0.771	0.650	0.429	0.241	0.116
2.520	0.661	0.535	0.373	0.219	0.094
3.175	0.518	0.437	0.309	0.195	0.080
4.000	0.377	0.316	0.219	0.150	0.061
5.040	0.270	0.228	0.154	0.151	0.045
6.350	0.193	0.172	0.106	0.185	0.051
8.000	0.189	0.164	0.086	0.396	0.069
10.079	0.122	0.129	0.048	0.111	0.037
12.699	0.113	0.136	0.036	0.046	0.027
16.000	0.052	0.060	0.020	0.019	0.014

TABLE 7.32
 1/3 OCTAVE RMS ACCELERATIONS
 10.7 ft Significant Wave Height
 50.5% Beam
 42.90 ft .CG
 $C_V = 1.616$
 Speed = 25 knots

Runs 293, 294, 295, 296

Accelerometer	#5	#4	#3	#2	#1
Center Frequency Hz	1/3 Octave RMS meters/sec ²				
0.099	0.718	0.645	0.526	0.444	0.415
0.125	1.033	0.921	0.736	0.613	0.585
0.157	1.298	1.155	0.918	0.760	0.730
0.198	1.457	1.296	1.030	0.854	0.819
0.250	1.636	1.455	1.156	0.958	0.920
0.315	1.836	1.633	1.298	1.075	1.032
0.397	2.013	1.771	1.369	1.102	1.078
0.500	2.250	1.975	1.518	1.214	1.192
0.630	1.937	1.688	1.266	0.970	0.934
0.794	1.619	1.394	0.999	0.692	0.617
1.000	1.342	1.152	0.807	0.495	0.276
1.260	1.299	1.108	0.781	0.485	0.275
1.587	1.250	1.062	0.749	0.463	0.261
2.000	1.164	0.988	0.689	0.427	0.284
2.520	1.058	0.883	0.608	0.384	0.269
3.175	0.944	0.775	0.535	0.337	0.227
4.000	0.760	0.628	0.423	0.290	0.229
5.040	0.557	0.467	0.315	0.304	0.137
6.350	0.352	0.296	0.203	0.387	0.088
8.000	0.279	0.219	0.162	0.668	0.114
10.079	0.166	0.143	0.090	0.136	0.062
12.699	0.126	0.113	0.042	0.043	0.030
16.000	0.056	0.052	0.016	0.018	0.016

TABLE 7.33
 1/3 OCTAVE RMS ACCELERATIONS
 10.7 ft Significant Wave Height
 50.5% Beam
 42.90 ft LCG
 $C_v = 1.939$
 Speed = 30 knots

Runs 297, 298, 299, 300

Accelerometer	#5	#4	#3	#2	#1
Center Frequency Hz	1/3 Octave RMS meters/sec ²				
0.099	0.713	0.648	0.543	0.474	0.445
0.125	1.064	0.958	0.786	0.674	0.643
0.157	1.352	1.214	0.989	0.844	0.809
0.198	1.517	1.363	1.110	0.947	0.908
0.250	1.703	1.530	1.246	1.063	1.019
0.315	1.912	1.717	1.399	1.194	1.144
0.397	2.192	1.945	1.536	1.271	1.236
0.500	2.471	2.186	1.717	1.412	1.377
0.630	2.199	1.930	1.478	1.166	1.114
0.794	1.937	1.680	1.237	0.901	0.807
1.000	1.665	1.443	1.047	0.702	0.463
1.260	1.595	1.378	1.010	0.699	0.481
1.587	1.514	1.306	0.966	0.694	0.494
2.000	1.439	1.228	0.912	0.686	0.509
2.520	1.328	1.133	0.841	0.661	0.516
3.175	1.198	1.007	0.738	0.628	0.505
4.000	1.034	0.857	0.606	0.573	0.467
5.040	0.819	0.667	0.449	0.510	0.398
6.350	0.602	0.471	0.305	0.472	0.293
8.000	0.464	0.346	0.189	0.682	0.196
10.079	0.177	0.154	0.111	0.180	0.143
12.699	0.115	0.112	0.056	0.037	0.033
16.000	0.051	0.052	0.018	0.018	0.015

TABLE 7.34
 1/3 OCTAVE RMS ACCELERATIONS
 2.9 ft Significant Wave Height
 13.7% Beam
 46.20 ft LCG
 $C_v = 0.646$
 Speed = 10 knots

Run 352

Accelerometer	#5	#4	#3	#2	#1
Center Frequency Hz	1/3 Octave RMS meters/sec ²				
0.099	0.168	0.137	0.084	0.041	0.068
0.125	0.264	0.215	0.132	0.060	0.098
0.157	0.340	0.277	0.170	0.077	0.124
0.198	0.382	0.311	0.191	0.086	0.139
0.250	0.429	0.350	0.215	0.097	0.156
0.315	0.481	0.392	0.241	0.108	0.175
0.397	0.522	0.426	0.262	0.115	0.177
0.500	0.582	0.475	0.293	0.128	0.195
0.630	0.453	0.371	0.229	0.100	0.147
0.794	0.293	0.241	0.150	0.066	0.084
1.000	0.113	0.097	0.059	0.029	0.027
1.260	0.076	0.068	0.039	0.018	0.019
1.587	0.057	0.062	0.023	0.016	0.012
2.000	0.119	0.127	0.040	0.029	0.021
2.520	0.091	0.084	0.024	0.032	0.025
3.175	0.064	0.059	0.020	0.020	0.018
4.000	0.049	0.058	0.016	0.017	0.014
5.040	0.060	0.064	0.016	0.021	0.014
6.350	0.061	0.070	0.018	0.032	0.015
8.000	0.075	0.079	0.028	0.089	0.019
10.079	0.085	0.091	0.036	0.046	0.023
12.699	0.090	0.098	0.028	0.033	0.021
16.000	0.042	0.046	0.012	0.012	0.010

TABLE 7.35
 1/3 OCTAVE RMS ACCELERATIONS
 2.9 ft Significant Wave Height
 13.7% Beam
 46.20 ft LCG
 $C_v = 0.970$
 Speed = 15 knots

Run 353

Accelerometer	#5	#4	#3	#2	#1
Center Frequency Hz	1/3 Octave RMS meters/sec ²				
0.099	0.148	0.124	0.083	0.050	0.056
0.125	0.266	0.222	0.149	0.088	0.099
0.157	0.353	0.294	0.197	0.116	0.132
0.198	0.397	0.330	0.221	0.130	0.148
0.250	0.445	0.370	0.248	0.146	0.166
0.315	0.500	0.415	0.278	0.164	0.186
0.397	0.587	0.486	0.324	0.189	0.219
0.500	0.664	0.550	0.366	0.213	0.248
0.630	0.539	0.446	0.295	0.170	0.198
0.794	0.392	0.324	0.212	0.117	0.135
1.000	0.213	0.180	0.114	0.054	0.033
1.260	0.159	0.133	0.086	0.043	0.036
1.587	0.092	0.080	0.046	0.024	0.018
2.000	0.104	0.115	0.042	0.034	0.022
2.520	0.091	0.086	0.030	0.036	0.026
3.175	0.069	0.056	0.026	0.023	0.019
4.000	0.053	0.050	0.019	0.023	0.013
5.040	0.052	0.050	0.018	0.024	0.015
6.350	0.055	0.058	0.022	0.036	0.017
8.000	0.068	0.064	0.028	0.097	0.019
10.079	0.074	0.076	0.034	0.044	0.023
12.699	0.080	0.078	0.029	0.032	0.021
16.000	0.037	0.032	0.013	0.013	0.011

TABLE 7.36
 1/3 OCTAVE RMS ACCELERATIONS
 2.9 ft Significant Wave Height
 13.7% Beam
 46.20 ft LCG
 $C_v = 1.293$
 Speed = 20 knots

Runs 354, 356

Accelerometer	#5	#4	#3	#2	#1
Center Frequency Hz	1/3 Octave RMS meters/sec ²				
0.099	0.105	0.090	0.066	0.048	0.047
0.125	0.218	0.186	0.134	0.096	0.104
0.157	0.295	0.251	0.181	0.130	0.142
0.198	0.331	0.282	0.203	0.146	0.159
0.250	0.372	0.317	0.228	0.164	0.179
0.315	0.418	0.356	0.256	0.184	0.201
0.397	0.540	0.458	0.324	0.234	0.270
0.500	0.620	0.525	0.371	0.268	0.312
0.630	0.526	0.445	0.311	0.222	0.267
0.794	0.417	0.352	0.240	0.167	0.211
1.000	0.220	0.189	0.119	0.060	0.061
1.260	0.174	0.147	0.095	0.048	0.043
1.587	0.118	0.102	0.060	0.031	0.026
2.000	0.138	0.131	0.050	0.032	0.027
2.520	0.104	0.092	0.032	0.035	0.028
3.175	0.072	0.066	0.028	0.025	0.021
4.000	0.062	0.063	0.021	0.021	0.017
5.040	0.061	0.067	0.019	0.028	0.017
6.350	0.065	0.074	0.018	0.057	0.018
8.000	0.074	0.083	0.026	0.103	0.022
10.079	0.083	0.093	0.031	0.043	0.023
12.699	0.093	0.097	0.025	0.033	0.025
16.000	0.042	0.042	0.012	0.013	0.011

TABLE 7.37
 1/3 OCTAVE RMS ACCELERATIONS
 2.9 ft Significant Wave Height
 13.7% Beam
 46.20 ft LCG
 $C_v = 1.616$
 Speed = 25 knots

Runs 357, 358

Accelerometer	#5	#4	#3	#2	#1
Center Frequency Hz	1/3 Octave RMS meters/sec ²				
0.099	0.062	0.053	0.042	0.035	0.038
0.125	0.156	0.134	0.100	0.081	0.095
0.157	0.217	0.186	0.138	0.111	0.131
0.198	0.243	0.209	0.155	0.125	0.147
0.250	0.273	0.234	0.174	0.140	0.166
0.315	0.306	0.263	0.195	0.157	0.186
0.397	0.454	0.385	0.275	0.216	0.274
0.500	0.530	0.449	0.320	0.250	0.320
0.630	0.500	0.420	0.293	0.220	0.289
0.794	0.465	0.387	0.263	0.186	0.250
1.000	0.341	0.281	0.187	0.106	0.118
1.260	0.262	0.211	0.139	0.074	0.083
1.587	0.167	0.138	0.087	0.043	0.048
2.000	0.148	0.150	0.066	0.036	0.035
2.520	0.109	0.103	0.045	0.036	0.032
3.175	0.084	0.068	0.034	0.029	0.025
4.000	0.066	0.063	0.027	0.026	0.020
5.040	0.067	0.063	0.027	0.026	0.018
6.350	0.068	0.068	0.027	0.024	0.020
8.000	0.086	0.083	0.041	0.210	0.027
10.079	0.084	0.084	0.036	0.041	0.023
12.699	0.087	0.092	0.033	0.032	0.024
16.000	0.039	0.039	0.014	0.013	0.011

TABLE 7.38
 1/3 OCTAVE RMS ACCELERATIONS
 2.9 ft Significant Wave Height
 13.7% Beam
 46.20 ft LCG
 $C_v = 1.939$
 Speed = 30 knots

Runs 359, 360

Accelerometer	#5	#4	#3	#2	#1
Center Frequency Hz	1/3 Octave RMS meters/sec ²				
0.099	0.036	0.031	0.026	0.023	0.025
0.125	0.122	0.104	0.076	0.061	0.076
0.157	0.172	0.146	0.106	0.085	0.107
0.198	0.193	0.164	0.119	0.096	0.120
0.250	0.216	0.184	0.134	0.108	0.134
0.315	0.243	0.207	0.150	0.121	0.151
0.397	0.427	0.358	0.245	0.181	0.245
0.500	0.506	0.424	0.289	0.211	0.289
0.630	0.526	0.438	0.292	0.198	0.274
0.794	0.533	0.444	0.291	0.183	0.252
1.000	0.400	0.343	0.229	0.134	0.138
1.260	0.308	0.269	0.178	0.106	0.118
1.587	0.227	0.193	0.122	0.062	0.081
2.000	0.180	0.174	0.086	0.044	0.052
2.520	0.118	0.115	0.051	0.039	0.036
3.175	0.088	0.071	0.033	0.027	0.022
4.000	0.073	0.068	0.029	0.030	0.018
5.040	0.072	0.075	0.025	0.038	0.018
6.350	0.070	0.081	0.021	0.065	0.018
8.000	0.092	0.080	0.037	0.145	0.023
10.079	0.090	0.091	0.041	0.071	0.024
12.699	0.100	0.103	0.026	0.032	0.023
16.000	0.051	0.045	0.011	0.012	0.009

TABLE 7.39
 1/3 OCTAVE RMS ACCELERATIONS
 2.9 ft Significant Wave Height
 13.7% Beam
 46.20 ft LCG
 $C_v = 2.263$
 Speed = 35 knots

Runs 361, 362

Accelerometer	#5	#4	#3	#2	#1
Center Frequency Hz	1/3 Octave RMS meters/sec ²				
0.099	0.025	0.021	0.018	0.017	0.015
0.125	0.104	0.088	0.064	0.050	0.058
0.157	0.148	0.125	0.090	0.069	0.083
0.198	0.166	0.140	0.101	0.078	0.093
0.250	0.186	0.157	0.113	0.087	0.104
0.315	0.209	0.176	0.127	0.098	0.117
0.397	0.426	0.353	0.241	0.165	0.215
0.500	0.509	0.422	0.286	0.195	0.255
0.630	0.591	0.489	0.325	0.202	0.260
0.794	0.651	0.540	0.356	0.206	0.257
1.000	0.568	0.483	0.322	0.176	0.166
1.260	0.464	0.401	0.266	0.151	0.158
1.587	0.339	0.291	0.182	0.093	0.116
2.000	0.263	0.260	0.142	0.068	0.078
2.520	0.177	0.152	0.084	0.051	0.047
3.175	0.120	0.096	0.053	0.035	0.031
4.000	0.096	0.079	0.043	0.032	0.024
5.040	0.084	0.080	0.036	0.044	0.024
6.350	0.088	0.076	0.029	0.080	0.025
8.000	0.092	0.077	0.039	0.155	0.027
10.079	0.099	0.090	0.039	0.062	0.030
12.699	0.117	0.095	0.031	0.037	0.026
16.000	0.057	0.043	0.013	0.014	0.011

TABLE 7.40
 1/3 OCTAVE RMS ACCELERATIONS
 4.6 ft Significant Wave Height
 21.7% Beam
 46.20 ft LCG
 $C_v = 0.646$
 Speed = 10 knots

Run 363

Accelerometer	#5	#4	#3	#2	#1
Center Frequency Hz	1/3 Octave RMS meters/sec ²				
0.099	0.279	0.230	0.144	0.086	0.131
0.125	0.411	0.339	0.210	0.113	0.173
0.157	0.521	0.429	0.264	0.137	0.210
0.198	0.585	0.482	0.297	0.154	0.236
0.250	0.656	0.541	0.333	0.173	0.265
0.315	0.737	0.607	0.374	0.194	0.298
0.397	0.768	0.632	0.388	0.187	0.283
0.500	0.849	0.699	0.429	0.202	0.306
0.630	0.656	0.539	0.332	0.154	0.225
0.794	0.416	0.341	0.213	0.092	0.116
1.000	0.194	0.158	0.101	0.044	0.038
1.260	0.125	0.101	0.061	0.025	0.031
1.587	0.090	0.078	0.039	0.018	0.018
2.000	0.135	0.142	0.046	0.029	0.024
2.520	0.099	0.097	0.027	0.029	0.022
3.175	0.094	0.082	0.028	0.027	0.025
4.000	0.064	0.069	0.020	0.018	0.015
5.040	0.064	0.078	0.021	0.021	0.016
6.350	0.069	0.089	0.022	0.032	0.017
8.000	0.082	0.097	0.031	0.091	0.021
10.079	0.090	0.111	0.038	0.045	0.025
12.699	0.094	0.119	0.030	0.031	0.024
16.000	0.048	0.056	0.013	0.012	0.010

TABLE 7.41
 1/3 OCTAVE RMS ACCELERATIONS
 4.6 ft Significant Wave Height
 21.7% Beam
 46.20 ft LCG
 $C_V = 0.970$
 Speed = 15 knots

Runs 364, 365

Accelerometer	#5	#4	#3	#2	#1
Center Frequency Hz	1/3 Octave RMS meters/sec ²				
0.099	0.303	0.255	0.176	0.117	0.132
0.125	0.487	0.409	0.278	0.179	0.202
0.157	0.630	0.529	0.359	0.228	0.259
0.198	0.708	0.594	0.403	0.256	0.290
0.250	0.794	0.667	0.453	0.288	0.326
0.315	0.892	0.749	0.508	0.323	0.366
0.397	0.985	0.826	0.555	0.345	0.395
0.500	1.103	0.924	0.620	0.384	0.440
0.630	0.885	0.741	0.495	0.299	0.340
0.794	0.632	0.528	0.348	0.195	0.213
1.000	0.386	0.322	0.212	0.099	0.034
1.260	0.263	0.221	0.146	0.072	0.045
1.587	0.171	0.148	0.093	0.044	0.027
2.000	0.156	0.150	0.075	0.042	0.030
2.520	0.120	0.103	0.053	0.036	0.024
3.175	0.112	0.090	0.049	0.031	0.028
4.000	0.069	0.065	0.025	0.021	0.014
5.040	0.059	0.063	0.020	0.022	0.014
6.350	0.066	0.068	0.022	0.040	0.018
8.000	0.079	0.078	0.034	0.123	0.022
10.079	0.084	0.091	0.035	0.043	0.022
12.699	0.087	0.094	0.025	0.028	0.021
16.000	0.042	0.044	0.013	0.012	0.010

TABLE 7.42
 1/3 OCTAVE RMS ACCELERATIONS
 4.6 ft Significant Wave Height
 21.7% Beam
 46.20 ft LCG
 $C_v = 1.293$
 Speed = 20 knots

Runs 371, 372

Accelerometer	#5	#4	#3	#2	#1
Center Frequency Hz	1/3 Octave RMS meters/sec ²				
0.099	0.272	0.233	0.176	0.131	0.131
0.125	0.475	0.406	0.300	0.222	0.234
0.157	0.627	0.534	0.394	0.291	0.309
0.198	0.704	0.600	0.442	0.326	0.347
0.250	0.790	0.673	0.497	0.366	0.389
0.315	0.887	0.756	0.557	0.411	0.437
0.397	1.051	0.890	0.646	0.471	0.524
0.500	1.191	1.008	0.729	0.531	0.596
0.630	0.992	0.836	0.596	0.423	0.483
0.794	0.768	0.643	0.443	0.293	0.344
1.000	0.503	0.422	0.275	0.126	0.081
1.260	0.420	0.352	0.232	0.114	0.077
1.587	0.316	0.267	0.174	0.085	0.050
2.000	0.258	0.215	0.131	0.067	0.043
2.520	0.193	0.159	0.095	0.054	0.032
3.175	0.145	0.120	0.074	0.048	0.037
4.000	0.090	0.082	0.049	0.030	0.018
5.040	0.068	0.071	0.032	0.034	0.017
6.350	0.062	0.066	0.022	0.057	0.019
8.000	0.081	0.078	0.036	0.145	0.025
10.079	0.081	0.088	0.036	0.045	0.022
12.699	0.088	0.090	0.025	0.029	0.022
16.000	0.040	0.043	0.013	0.012	0.010

TABLE 7.43
 1/3 OCTAVE RMS ACCELERATIONS
 4.6 ft Significant Wave Height
 21.7% Beam
 46.20 ft LCG
 $C_v = 1.616$
 Speed = 25 knots

Runs 373, 374

Accelerometer	#5	#4	#3	#2	#1
Center Frequency Hz	1/3 Octave RMS meters/sec ²				
0.099	0.227	0.199	0.159	0.132	0.133
0.125	0.441	0.382	0.295	0.239	0.260
0.157	0.593	0.512	0.393	0.317	0.350
0.198	0.665	0.575	0.441	0.356	0.393
0.250	0.747	0.646	0.495	0.399	0.441
0.315	0.838	0.725	0.555	0.448	0.495
0.397	1.085	0.926	0.687	0.541	0.632
0.500	1.246	1.061	0.784	0.615	0.725
0.630	1.094	0.924	0.665	0.502	0.606
0.794	0.924	0.771	0.530	0.367	0.461
1.000	0.601	0.500	0.319	0.144	0.127
1.260	0.506	0.423	0.276	0.131	0.100
1.587	0.378	0.315	0.211	0.104	0.060
2.000	0.291	0.250	0.156	0.079	0.049
2.520	0.202	0.176	0.109	0.057	0.034
3.175	0.143	0.116	0.071	0.048	0.032
4.000	0.085	0.080	0.043	0.033	0.008
5.040	0.080	0.081	0.038	0.034	0.017
6.350	0.075	0.073	0.032	0.082	0.022
8.000	0.099	0.086	0.054	0.248	0.032
10.079	0.093	0.091	0.038	0.043	0.020
12.699	0.098	0.100	0.027	0.032	0.019
16.000	0.044	0.047	0.014	0.013	0.009

TABLE 7.44
 1/3 OCTAVE RMS ACCELERATIONS
 4.6 ft Significant Wave Height
 21.7% Beam
 46.20 ft LCG
 $C_v = 1.939$
 Speed = 30 knots

Runs 375, 376, 377

Accelerometer	#5	#4	#3	#2	#1
Center Frequency Hz	1/3 Octave RMS meters/sec ²				
0.099	0.184	0.161	0.132	0.114	0.122
0.125	0.393	0.341	0.266	0.222	0.252
0.157	0.535	0.463	0.359	0.298	0.341
0.198	0.600	0.520	0.403	0.335	0.383
0.250	0.674	0.584	0.452	0.376	0.429
0.315	0.756	0.655	0.507	0.422	0.482
0.397	1.067	0.910	0.675	0.539	0.650
0.500	1.239	1.055	0.778	0.618	0.751
0.630	1.143	0.964	0.689	0.522	0.652
0.794	1.029	0.858	0.587	0.408	0.532
1.000	0.678	0.563	0.362	0.180	0.199
1.260	0.560	0.468	0.305	0.155	0.148
1.587	0.428	0.361	0.239	0.126	0.104
2.000	0.320	0.283	0.177	0.098	0.080
2.520	0.207	0.184	0.113	0.061	0.049
3.175	0.128	0.109	0.070	0.052	0.036
4.000	0.090	0.083	0.046	0.035	0.026
5.040	0.076	0.081	0.039	0.041	0.025
6.350	0.071	0.080	0.031	0.070	0.028
8.000	0.100	0.102	0.055	0.198	0.036
10.079	0.089	0.103	0.048	0.066	0.029
12.699	0.099	0.115	0.027	0.033	0.024
16.000	0.047	0.045	0.012	0.013	0.011

TABLE 7.45
 1/3 OCTAVE RMS ACCELERATIONS
 10.7 ft Significant Wave Height
 50.5% Beam
 46.20 ft LCG
 $C_V = 0.646$
 Speed = 10 knots

Runs 378, 379

Accelerometer	#5	#4	#3	#2	#1
Center Frequency Hz	1/3 Octave RMS meters/sec ²				
0.099	0.536	0.449	0.312	0.232	0.301
0.125	0.702	0.582	0.391	0.268	0.359
0.157	0.853	0.705	0.466	0.306	0.417
0.198	0.958	0.791	0.523	0.344	0.468
0.250	1.075	0.888	0.587	0.386	0.526
0.315	1.207	0.997	0.659	0.433	0.590
0.397	1.161	0.954	0.616	0.366	0.510
0.500	1.258	1.032	0.661	0.379	0.533
0.630	0.966	0.793	0.506	0.278	0.382
0.794	0.608	0.500	0.317	0.145	0.166
1.000	0.382	0.317	0.204	0.092	0.063
1.260	0.293	0.239	0.154	0.067	0.056
1.587	0.239	0.195	0.124	0.054	0.045
2.000	0.218	0.196	0.108	0.050	0.044
2.520	0.174	0.153	0.088	0.044	0.040
3.175	0.144	0.120	0.071	0.039	0.038
4.000	0.084	0.085	0.042	0.026	0.024
5.040	0.068	0.076	0.028	0.026	0.020
6.350	0.067	0.078	0.026	0.045	0.023
8.000	0.088	0.091	0.040	0.152	0.032
10.079	0.087	0.098	0.037	0.049	0.028
12.699	0.091	0.112	0.025	0.030	0.023
16.000	0.043	0.053	0.012	0.012	0.011

TABLE 7.46
 1/3 OCTAVE RMS ACCELERATIONS
 10.7 ft Significant Wave Height
 50.5% Beam
 46.20 ft LCG
 $C_v = 0.970$
 Speed = 15 knots

Runs 380, 381, 382

Accelerometer	#5	#4	#3	#2	#1
Center Frequency Hz	1/3 Octave RMS meters/sec ²				
0.099	0.601	0.517	0.387	0.302	0.332
0.125	0.824	0.703	0.512	0.381	0.420
0.157	1.020	0.867	0.625	0.455	0.503
0.198	1.144	0.973	0.702	0.511	0.565
0.250	1.285	1.092	0.788	0.574	0.634
0.315	1.442	1.226	0.884	0.644	0.712
0.397	1.462	1.234	0.870	0.603	0.670
0.500	1.605	1.352	0.948	0.648	0.721
0.630	1.281	1.075	0.744	0.487	0.537
0.794	0.907	0.755	0.502	0.282	0.293
1.000	0.627	0.521	0.340	0.152	0.077
1.260	0.526	0.436	0.289	0.135	0.080
1.587	0.461	0.385	0.257	0.124	0.062
2.000	0.403	0.344	0.226	0.116	0.053
2.520	0.335	0.284	0.193	0.105	0.046
3.175	0.285	0.235	0.161	0.090	0.047
4.000	0.213	0.180	0.127	0.078	0.031
5.040	0.153	0.134	0.091	0.071	0.028
6.350	0.105	0.094	0.057	0.084	0.029
8.000	0.106	0.084	0.058	0.190	0.038
10.079	0.091	0.089	0.046	0.055	0.028
12.699	0.094	0.091	0.026	0.028	0.022
16.000	0.043	0.042	0.013	0.012	0.010

TABLE 7.47
 1/3 OCTAVE RMS ACCELERATIONS
 10.7 ft Significant Wave Height
 50.5% Beam
 46.20 ft LCG
 $C_v = 1.293$
 Speed = 20 knots

Runs 383, 384, 385

Accelerometer	#5	#4	#3	#2	#1
Center Frequency Hz	1/3 Octave RMS meters/sec ²				
0.099	0.623	0.547	0.432	0.353	0.357
0.125	0.884	0.770	0.595	0.473	0.485
0.157	1.106	0.961	0.737	0.580	0.598
0.198	1.241	1.078	0.827	0.652	0.672
0.250	1.393	1.210	0.928	0.731	0.754
0.315	1.564	1.359	1.042	0.821	0.846
0.397	1.657	1.425	1.066	0.814	0.858
0.500	1.838	1.578	1.173	0.888	0.942
0.630	1.526	1.301	0.945	0.685	0.723
0.794	1.191	0.999	0.689	0.435	0.444
1.000	0.923	0.771	0.514	0.253	0.123
1.260	0.832	0.694	0.469	0.237	0.128
1.587	0.759	0.634	0.429	0.214	0.103
2.000	0.669	0.579	0.385	0.195	0.088
2.520	0.587	0.495	0.340	0.181	0.066
3.175	0.486	0.408	0.290	0.166	0.069
4.000	0.363	0.309	0.217	0.133	0.048
5.040	0.238	0.210	0.151	0.113	0.043
6.350	0.146	0.123	0.090	0.125	0.043
8.000	0.117	0.103	0.083	0.285	0.052
10.079	0.096	0.088	0.071	0.069	0.026
12.699	0.094	0.088	0.026	0.032	0.017
16.000	0.045	0.042	0.015	0.013	0.011

TABLE 7.48
 1/3 OCTAVE RMS ACCELERATIONS
 10.7 ft Significant Wave Height
 50.5% Beam
 46.20 ft LCG
 $C_V = 1.616$
 Speed = 25 knots

Runs 386, 387, 388, 389

Accelerometer	#5	#4	#3	#2	#1
Center Frequency Hz	1/3 Octave RMS meters/sec ²				
0.099	0.671	0.598	0.493	0.418	0.409
0.125	0.974	0.860	0.695	0.582	0.588
0.157	1.228	1.081	0.868	0.724	0.739
0.198	1.378	1.214	0.975	0.813	0.830
0.250	1.547	1.363	1.094	0.912	0.931
0.315	1.737	1.529	1.228	1.024	1.045
0.397	1.912	1.663	1.297	1.056	1.114
0.500	2.138	1.855	1.437	1.164	1.238
0.630	1.834	1.578	1.189	0.923	0.979
0.794	1.520	1.289	0.920	0.640	0.662
1.000	1.230	1.039	0.716	0.412	0.294
1.260	1.138	0.961	0.666	0.395	0.307
1.587	1.054	0.887	0.613	0.364	0.310
2.000	0.948	0.802	0.544	0.327	0.330
2.520	0.835	0.688	0.463	0.276	0.315
3.175	0.701	0.567	0.382	0.233	0.287
4.000	0.527	0.430	0.293	0.199	0.207
5.040	0.341	0.285	0.211	0.189	0.111
6.350	0.188	0.163	0.129	0.233	0.061
8.000	0.165	0.133	0.127	0.444	0.096
10.079	0.106	0.108	0.082	0.085	0.063
12.699	0.097	0.099	0.031	0.035	0.024
16.000	0.046	0.042	0.018	0.015	0.014

TABLE 7.49
 1/3 OCTAVE RMS ACCELERATIONS
 10.7 ft Significant Wave Height
 50.5% Beam
 46.20 ft LCG
 $C_V = 1.939$
 Speed = 30 knots

Runs 390, 391, 392, 393

Accelerometer	#5	#4	#3	#2	#1
Center Frequency Hz	1/3 Octave RMS meters/sec ²				
0.099	0.652	0.588	0.500	0.440	0.437
0.125	0.988	0.882	0.734	0.637	0.650
0.157	1.260	1.122	0.928	0.803	0.825
0.198	1.415	1.260	1.041	0.901	0.926
0.250	1.588	1.414	1.169	1.011	1.039
0.315	1.783	1.587	1.312	1.135	1.166
0.397	2.055	1.804	1.441	1.213	1.279
0.500	2.318	2.029	1.611	1.348	1.430
0.630	2.045	1.773	1.363	1.094	1.157
0.794	1.773	1.514	1.103	0.806	0.835
1.000	1.465	1.246	0.876	0.552	0.448
1.260	1.377	1.163	0.824	0.530	0.457
1.587	1.275	1.077	0.762	0.501	0.458
2.000	1.163	0.992	0.695	0.475	0.473
2.520	1.032	0.859	0.598	0.429	0.478
3.175	0.893	0.727	0.493	0.368	0.466
4.000	0.701	0.563	0.376	0.307	0.407
5.040	0.468	0.386	0.275	0.331	0.291
6.350	0.269	0.236	0.179	0.456	0.163
8.000	0.208	0.170	0.208	0.613	0.129
10.079	0.128	0.115	0.107	0.124	0.071
12.699	0.093	0.102	0.031	0.037	0.027
16.000	0.045	0.045	0.017	0.016	0.012

TABLE 8.1
PITCH SPECTRAL DENSITY
120 ft WPB
39.60 ft LCG

Column

1 Runs 305
2 Runs 306
3 Runs 307, 308
4 Runs 309, 310
5 Runs 311, 312
6 Runs 313, 314

2.9 ft Significant Wave Height
13.7% Beam

SPEED knots	10	15	20	25	30	35
C_v	0.646	0.970	1.293	1.616	1.939	2.263
Fre- quency Hz	Spectral Estimates deg ² /Hz					
0.00	0.1810E+00	0.3651E+00	0.3426E+00	0.3708E+00	0.2481E-01	0.7488E-01
0.04	0.3056E+00	0.4167E+00	0.3614E+00	0.3657E+00	0.7298E-01	0.6831E-01
0.08	0.4135E+00	0.3034E+00	0.3480E+00	0.2955E+00	0.1897E+00	0.6587E-01
0.12	0.2503E+00	0.1015E+00	0.2063E+00	0.2726E+00	0.2905E+00	0.1216E+00
0.16	0.1496E+00	0.3980E-01	0.5545E-01	0.3302E+00	0.2640E+00	0.1133E+00
0.20	0.4931E+00	0.7895E-01	0.3078E-01	0.1693E+00	0.2008E+00	0.8195E-01
0.24	0.3209E+01	0.4583E+00	0.5793E-01	0.6543E-01	0.1169E+00	0.9890E-01
0.28	0.7169E+01	0.2145E+01	0.3588E+00	0.1196E+00	0.6920E-01	0.9028E-01
0.32	0.7909E+01	0.4610E+01	0.1161E+01	0.3620E+00	0.8213E-01	0.7082E-01
0.35	0.5619E+01	0.4934E+01	0.2228E+01	0.7575E+00	0.2611E+00	0.1233E+00
0.39	0.2774E+01	0.3316E+01	0.2363E+01	0.1214E+01	0.4605E+00	0.2267E+00
0.43	0.1079E+01	0.1673E+01	0.1788E+01	0.1163E+01	0.6878E+00	0.3158E+00
0.47	0.3369E+00	0.8020E+00	0.1063E+01	0.8978E+00	0.7588E+00	0.4437E+00
0.51	0.9004E-01	0.3053E+00	0.4860E+00	0.8074E+00	0.5197E+00	0.5792E+00
0.55	0.6388E-02	0.5472E-01	0.2327E+00	0.4382E+00	0.4334E+00	0.4757E+00
0.59	0.7554E-02	0.9308E-02	0.9539E-01	0.2075E+00	0.4383E+00	0.3115E+00
0.63	-0.6762E-03	0.2217E-02	0.4591E-01	0.1139E+00	0.2921E+00	0.3056E+00
0.67	0.6497E-02	-0.2095E-02	0.1312E-01	0.5947E-01	0.1445E+00	0.3440E+00
0.71	0.7355E-03	-0.1484E-02	0.7536E-02	0.3569E-01	0.9280E-01	0.2564E+00
0.75	0.1194E-01	0.4502E-02	0.1911E-03	0.2425E-01	0.6820E-01	0.1540E+00
0.79	0.1204E-01	0.1275E-01	0.1874E-01	0.1700E-01	0.3582E-01	0.9671E-01
0.83	0.1542E-01	0.1351E-01	0.4843E-01	0.2742E-01	0.3084E-01	0.8459E-01
0.87	0.6124E-02	0.7861E-02	0.4478E-01	0.2850E-01	0.3793E-01	0.1026E+00
0.90	0.8172E-02	0.5849E-02	0.1173E-01	0.2657E-01	0.5411E-01	0.1012E+00
0.94	0.1264E-03	0.3916E-02	0.8530E-02	0.1629E-01	0.5691E-01	0.7525E-01
0.98	0.3094E-02	0.2626E-02	0.4052E-02	0.1753E-01	0.2986E-01	0.3358E-01
1.02	-0.1346E-02	0.1722E-02	0.8495E-02	0.1586E-01	0.1760E-01	0.2935E-01
1.06	0.2952E-02	0.1537E-02	0.3136E-02	0.2009E-01	0.1617E-01	0.3104E-01
1.10	-0.1821E-02	0.8617E-03	0.4795E-02	0.1344E-01	0.1355E-01	0.2738E-01
1.14	0.2134E-02	0.1487E-03	0.3702E-03	0.1526E-01	0.1127E-01	0.1348E-01
1.18	-0.2119E-02	-0.4737E-03	0.3789E-02	0.1108E-01	0.1045E-01	0.6047E-02

TABLE 8.2
PITCH SPECTRAL DENSITY
120 ft WPB
39.60 ft LCG

Column						
1	Runs 315					
2	Runs 316					
3	Runs 317, 319					
4	Runs 320, 321					
5	Runs 322, 328					
6	Runs 329, 330, 331					
4.6 ft Significant Wave Height 21.7% Beam						
SPEED knots	10	10	15	20	25	30
C _v	0.646	0.646	0.970	1.293	1.616	1.939
Fre- quency Hz	Spectral Estimates deg ² /Hz					
0.00	0.4727E+00	0.4751E+00	0.1261E+01	0.7999E+00	0.6085E+00	0.2479E+00
0.04	0.8634E+00	0.9790E+00	0.1516E+01	0.7466E+00	0.5508E+00	0.6225E+00
0.08	0.1398E+01	0.1866E+01	0.9820E+00	0.7206E+00	0.4766E+00	0.1190E+01
0.12	0.1152E+01	0.1288E+01	0.3741E+00	0.5532E+00	0.5557E+00	0.9367E+00
0.16	0.2362E+01	0.2222E+01	0.4871E+00	0.5246E+00	0.6444E+00	0.4805E+00
0.20	0.9916E+01	0.9032E+01	0.3158E+01	0.1266E+01	0.7351E+00	0.3632E+00
0.24	0.1954E+02	0.1855E+02	0.9995E+01	0.3230E+01	0.1497E+01	0.6679E+00
0.28	0.2582E+02	0.2393E+02	0.1819E+02	0.6857E+01	0.3335E+01	0.1763E+01
0.32	0.2441E+02	0.2228E+02	0.2082E+02	0.1213E+02	0.5883E+01	0.4263E+01
0.35	0.1351E+02	0.1417E+02	0.1655E+02	0.1386E+02	0.8759E+01	0.6860E+01
0.39	0.4986E+01	0.5595E+01	0.9492E+01	0.1089E+02	0.9112E+01	0.8202E+01
0.43	0.1473E+01	0.1470E+01	0.3614E+01	0.6079E+01	0.7371E+01	0.7148E+01
0.47	0.4661E+00	0.2769E+00	0.1214E+01	0.2503E+01	0.4525E+01	0.4569E+01
0.51	0.2036E+00	0.7167E-01	0.4145E+00	0.9959E+00	0.2107E+01	0.2774E+01
0.55	0.8007E-01	-0.4408E-02	0.1624E+00	0.3340E+00	0.9860E+00	0.1743E+01
0.59	0.2229E-01	0.4882E-02	0.2531E-01	0.1423E+00	0.4868E+00	0.1033E+01
0.63	0.3628E-01	-0.3825E-02	0.3173E-01	0.6873E-01	0.2273E+00	0.5782E+00
0.67	0.2517E-01	0.1891E-01	0.2401E-01	0.5000E-01	0.1131E+00	0.2865E+00
0.71	0.3338E-01	0.1892E-01	0.5568E-01	0.2873E-01	0.5261E-01	0.1507E+00
0.75	0.2649E-01	0.2647E-01	0.6771E-01	0.7266E-01	0.5403E-01	0.1417E+00
0.79	0.3975E-01	0.2033E-01	0.8725E-01	0.8145E-01	0.8684E-01	0.1276E+00
0.83	0.2551E-01	0.2665E-01	0.5234E-01	0.9096E-01	0.8716E-01	0.8297E-01
0.87	0.2862E-01	0.3882E-02	0.4195E-01	0.7832E-01	0.9125E-01	0.9330E-01
0.90	0.1583E-01	0.5428E-02	0.2029E-01	0.6179E-01	0.7231E-01	0.1158E+00
0.94	0.2040E-01	-0.5079E-02	0.2297E-01	0.3346E-01	0.5872E-01	0.8502E-01
0.98	0.1367E-01	0.1722E-02	0.3473E-03	0.3018E-01	0.3901E-01	0.5115E-01
1.02	0.1909E-01	-0.5256E-02	0.8366E-02	0.2023E-01	0.2877E-01	0.3370E-01
1.06	0.7589E-02	0.5654E-03	-0.4270E-02	0.2505E-01	0.2867E-01	0.3819E-01
1.10	0.1417E-01	-0.6216E-02	0.5487E-02	0.1966E-01	0.1887E-01	0.3687E-01
1.14	0.7928E-02	0.3784E-03	-0.5581E-02	0.2109E-01	0.1426E-01	0.3899E-01
1.18	0.1506E-01	-0.6459E-02	0.5123E-02	0.1107E-01	0.1651E-01	0.3270E-01

TABLE 8.3
PITCH SPECTRAL DENSITY
120 ft WPB
39.60 ft LCG

Column					
1	Runs 332, 333				
2	Runs 334, 335, 336				
3	Runs 337, 338, 339				
4	Runs 340, 341, 342, 344				
5	Runs 345, 346, 347, 348				
10.7 ft Significant Wave Height 50.5% Beam					
SPEED knots	10	15	20	25	30
C _v	0.646	0.970	1.293	1.616	1.939
Fre- quency Hz	Spectral Estimates deg ² /Hz				
0.00	0.3177E+01	0.5264E+01	0.6692E+01	0.4055E+01	0.6349E+01
0.04	0.3693E+01	0.5871E+01	0.7682E+01	0.4129E+01	0.7821E+01
0.08	0.6060E+01	0.4959E+01	0.7950E+01	0.4470E+01	0.7905E+01
0.12	0.2354E+02	0.1152E+02	0.1051E+02	0.4544E+01	0.6079E+01
0.16	0.6072E+02	0.3866E+02	0.2545E+02	0.1014E+02	0.9239E+01
0.20	0.7777E+02	0.7402E+02	0.4856E+02	0.2970E+02	0.2284E+02
0.24	0.7687E+02	0.8547E+02	0.6168E+02	0.5167E+02	0.3700E+02
0.28	0.7384E+02	0.7278E+02	0.6064E+02	0.5618E+02	0.4378E+02
0.32	0.5773E+02	0.4677E+02	0.5491E+02	0.4148E+02	0.4396E+02
0.35	0.2591E+02	0.2803E+02	0.3510E+02	0.3133E+02	0.3172E+02
0.39	0.6517E+01	0.1555E+02	0.1614E+02	0.2193E+02	0.1896E+02
0.43	0.1630E+01	0.5647E+01	0.8539E+01	0.1139E+02	0.1164E+02
0.47	0.4361E+00	0.1891E+01	0.3317E+01	0.6531E+01	0.5977E+01
0.51	0.1850E+00	0.5423E+00	0.1242E+01	0.3138E+01	0.3520E+01
0.55	0.7916E-01	0.3431E+00	0.4732E+00	0.1263E+01	0.2415E+01
0.59	0.5652E-01	0.1395E+00	0.3064E+00	0.7217E+00	0.1356E+01
0.63	0.2780E-01	0.1752E+00	0.1128E+00	0.5467E+00	0.4963E+00
0.67	0.5086E-01	0.1011E+00	0.9349E-01	0.4000E+00	0.4101E+00
0.71	0.5583E-01	0.2369E+00	0.6706E-02	0.2848E+00	0.3362E+00
0.75	0.8534E-01	0.2315E+00	0.1316E+00	0.1911E+00	0.3046E+00
0.79	0.6238E-01	0.2414E+00	0.1376E+00	0.2131E+00	0.2900E+00
0.83	0.4953E-01	0.1001E+00	0.2059E+00	0.1978E+00	0.3620E+00
0.87	0.2121E-01	0.1394E+00	0.1401E+00	0.2378E+00	0.3371E+00
0.90	0.2153E-01	0.7617E-01	0.1306E+00	0.2280E+00	0.2591E+00
0.94	0.2723E-02	0.1166E+00	0.5166E-01	0.2230E+00	0.2040E+00
0.98	0.6549E-02	0.4929E-01	0.6884E-01	0.1223E+00	0.1716E+00
1.02	-0.6403E-02	0.8763E-01	0.1528E-01	0.1138E+00	0.1054E+00
1.06	0.3321E-02	0.3678E-01	0.5185E-01	0.8165E-01	0.7406E-01
1.10	-0.7034E-02	0.7842E-01	0.1444E-01	0.1029E+00	0.6897E-01
1.14	0.6334E-03	0.2174E-01	0.4153E-01	0.9535E-01	0.7675E-01
1.18	-0.9483E-02	0.5960E-01	0.2403E-02	0.1148E+00	0.6623E-01

TABLE 8.4
PITCH SPECTRAL DENSITY
120 ft WPB
42.90 ft LCG

Column

1 Runs 233
2 Runs 234
3 Runs 235, 236
4 Runs 237, 241
5 Runs 242, 243
6 Runs 244, 245

2.9 ft Significant Wave Height
13.7% Beam

SPEED knots	10	15	20	25	30	35
C _v	0.646	0.970	1.293	1.616	1.939	2.263
Fre- quency Hz	Spectral Estimates deg ² /Hz					
0.00	0.1095E+00	0.1097E+01	0.7087E+00	0.2809E+00	0.1558E+00	0.5908E-01
0.04	0.3632E+00	0.9082E+00	0.7071E+00	0.3745E+00	0.1717E+00	0.7425E-01
0.08	0.7708E+00	0.3667E+00	0.4168E+00	0.4341E+00	0.2740E+00	0.9368E-01
0.12	0.4821E+00	0.9239E-01	0.1326E+00	0.2999E+00	0.3595E+00	0.1756E+00
0.16	0.1303E+00	0.1447E-01	0.6220E-01	0.3223E+00	0.3398E+00	0.2377E+00
0.20	0.4765E+00	0.6599E-01	0.3038E-01	0.2304E+00	0.2511E+00	0.1588E+00
0.24	0.2856E+01	0.4394E+00	0.6164E-01	0.1137E+00	0.1637E+00	0.7588E-01
0.28	0.6770E+01	0.1828E+01	0.3936E+00	0.7907E-01	0.1132E+00	0.7646E-01
0.32	0.8424E+01	0.3774E+01	0.1260E+01	0.3362E+00	0.1017E+00	0.7536E-01
0.35	0.5856E+01	0.4334E+01	0.1792E+01	0.6185E+00	0.3030E+00	0.1325E+00
0.39	0.2611E+01	0.3061E+01	0.1764E+01	0.9704E+00	0.4980E+00	0.3747E+00
0.43	0.8786E+00	0.1523E+01	0.1533E+01	0.1074E+01	0.6038E+00	0.5124E+00
0.47	0.1989E+00	0.7104E+00	0.1000E+01	0.7537E+00	0.7013E+00	0.4756E+00
0.51	0.5258E-01	0.2686E+00	0.5158E+00	0.7060E+00	0.4416E+00	0.4403E+00
0.55	0.1864E-02	0.6749E-01	0.2195E+00	0.4083E+00	0.3623E+00	0.2885E+00
0.59	0.9201E-02	0.1445E-01	0.6882E-01	0.1516E+00	0.3246E+00	0.1697E+00
0.63	-0.1034E-02	0.7542E-02	0.1705E-01	0.6435E-01	0.1759E+00	0.2527E+00
0.67	0.7390E-02	0.1445E-02	0.5078E-02	0.3937E-01	0.9182E-01	0.2301E+00
0.71	0.1167E-03	0.8886E-02	-0.2214E-02	0.1443E-01	0.5764E-01	0.1313E+00
0.75	0.7688E-02	0.6860E-02	0.1476E-02	0.1282E-01	0.2976E-01	0.8930E-01
0.79	0.2426E-02	0.2092E-01	0.1155E-01	0.1111E-01	0.1569E-01	0.5656E-01
0.83	0.8832E-02	0.2592E-01	0.3280E-01	0.2214E-01	0.1429E-01	0.4747E-01
0.87	0.1736E-02	0.1675E-01	0.2407E-01	0.2392E-01	0.2421E-01	0.5508E-01
0.90	0.6116E-02	0.5793E-02	0.1191E-01	0.2655E-01	0.3355E-01	0.5989E-01
0.94	-0.1070E-02	0.6734E-02	0.6091E-02	0.9880E-02	0.3000E-01	0.6824E-01
0.98	0.2327E-02	0.3636E-02	0.3904E-02	0.1192E-01	0.2297E-01	0.4304E-01
1.02	-0.3020E-02	0.5264E-02	0.9283E-03	0.9365E-02	0.2178E-01	0.3150E-01
1.06	0.1552E-02	0.2159E-02	0.2339E-02	0.1020E-01	0.1265E-01	0.2093E-01
1.10	-0.2943E-02	0.4175E-02	0.1234E-02	0.2839E-02	0.9844E-02	0.1187E-01
1.14	0.1383E-02	0.1407E-02	0.2442E-02	0.6270E-02	0.9162E-02	0.1037E-01
1.18	-0.3368E-02	0.3740E-02	0.1165E-02	0.2003E-02	0.1363E-01	0.8703E-02

TABLE 8.5
PITCH SPECTRAL DENSITY
120 ft WPB
42.90 ft LCG

Column

1 Runs 246
2 Runs 247, 248
3 Runs 263, 264
4 Runs 265, 267
5 Runs 271, 272, 273

4.6 ft Significant Wave Height
21.7% Beam

SPEED knots	10	15	20	25	30
C_v	0.646	0.970	1.293	1.616	1.939
Fre- quency Hz	Spectral Estimates deg ² /Hz				
0.00	0.3885E+00	0.2557E+01	0.1577E+01	0.8226E+00	0.5869E+00
0.04	0.8039E+00	0.2143E+01	0.1570E+01	0.1316E+01	0.5313E+00
0.08	0.1682E+01	0.1088E+01	0.1230E+01	0.1434E+01	0.6450E+00
0.12	0.1364E+01	0.4042E+00	0.7144E+00	0.7983E+00	0.9943E+00
0.16	0.2395E+01	0.5864E+00	0.2923E+00	0.3865E+00	0.8449E+00
0.20	0.9582E+01	0.3243E+01	0.1013E+01	0.4503E+00	0.5036E+00
0.24	0.1806E+02	0.1069E+02	0.4218E+01	0.1391E+01	0.4967E+00
0.28	0.2061E+02	0.1797E+02	0.9392E+01	0.3399E+01	0.1408E+01
0.32	0.1795E+02	0.1792E+02	0.1263E+02	0.7010E+01	0.3243E+01
0.35	0.1192E+02	0.1376E+02	0.1156E+02	0.1028E+02	0.5068E+01
0.39	0.4880E+01	0.8666E+01	0.9017E+01	0.8951E+01	0.5890E+01
0.43	0.1192E+01	0.3839E+01	0.5422E+01	0.6177E+01	0.5044E+01
0.47	0.2061E+00	0.1210E+01	0.2461E+01	0.3727E+01	0.3415E+01
0.51	0.7146E-01	0.3247E+00	0.9170E+00	0.1866E+01	0.2349E+01
0.55	-0.1193E-01	0.8778E-01	0.3514E+00	0.7766E+00	0.1714E+01
0.59	0.2657E-02	0.1653E-01	0.1224E+00	0.3235E+00	0.8557E+00
0.63	-0.9716E-02	0.1172E-01	0.5387E-01	0.1437E+00	0.3575E+00
0.67	0.1994E-01	0.2728E-01	0.1568E-01	0.6479E-01	0.1525E+00
0.71	0.1218E-01	0.4406E-01	0.3741E-01	0.2238E-01	0.1069E+00
0.75	0.2614E-01	0.6881E-01	0.6903E-01	0.3391E-01	0.4759E-01
0.79	0.1926E-01	0.7319E-01	0.1081E+00	0.5764E-01	0.3835E-01
0.83	0.2812E-01	0.7279E-01	0.1340E+00	0.1116E+00	0.3122E-01
0.87	-0.9328E-03	0.4891E-01	0.1051E+00	0.1451E+00	0.4277E-01
0.90	0.4637E-02	0.2560E-01	0.4784E-01	0.9793E-01	0.5457E-01
0.94	-0.6884E-02	0.1154E-01	0.4333E-01	0.4612E-01	0.7321E-01
0.98	0.2553E-02	0.9878E-03	0.2535E-01	0.2548E-01	0.5415E-01
1.02	-0.6967E-02	-0.1849E-02	0.1749E-01	0.2983E-01	0.4862E-01
1.06	0.3492E-02	-0.2170E-02	0.1303E-01	0.2875E-01	0.4739E-01
1.10	-0.7365E-02	-0.1817E-02	0.1368E-01	0.1675E-01	0.4608E-01
1.14	0.1391E-02	-0.2856E-02	0.1677E-03	0.1598E-01	0.2842E-01
1.18	-0.7550E-02	-0.3437E-02	0.3654E-02	0.1768E-01	0.3693E-01

TABLE 8.6
PITCH SPECTRAL DENSITY
120 ft WPB
42.90 ft LCG

Column

- 1 Runs 274, 275
2 Runs 276, 277, 278
3 Runs 290, 291, 292
4 Runs 293, 294, 295, 296
5 Runs 297, 298, 299, 300

10.7 ft Significant Wave Height
50.5% Beam

SPEED knots	10	15	20	25	30
C_v	0.646	0.970	1.293	1.616	1.939
Fre- quency Hz	Spectral Estimates deg ² /Hz				
0.00	0.1513E+01	0.2958E+01	0.6405E+01	0.4959E+01	0.6000E+01
0.04	0.2095E+01	0.3859E+01	0.5937E+01	0.5523E+01	0.6910E+01
0.08	0.5580E+01	0.3690E+01	0.4769E+01	0.5541E+01	0.7488E+01
0.12	0.1972E+02	0.1042E+02	0.6249E+01	0.6043E+01	0.6490E+01
0.16	0.4921E+02	0.3769E+02	0.1984E+02	0.1415E+02	0.8847E+01
0.20	0.7226E+02	0.6720E+02	0.4323E+02	0.3187E+02	0.2144E+02
0.24	0.7322E+02	0.7264E+02	0.5647E+02	0.4788E+02	0.3448E+02
0.28	0.5607E+02	0.6470E+02	0.5292E+02	0.5217E+02	0.4030E+02
0.32	0.3700E+02	0.4220E+02	0.4792E+02	0.4064E+02	0.4044E+02
0.35	0.1777E+02	0.2571E+02	0.3067E+02	0.2874E+02	0.3015E+02
0.39	0.5864E+01	0.1324E+02	0.1502E+02	0.1803E+02	0.1859E+02
0.43	0.2496E+01	0.4218E+01	0.8586E+01	0.8513E+01	0.1081E+02
0.47	0.7742E+00	0.1472E+01	0.3247E+01	0.4896E+01	0.5159E+01
0.51	0.2986E+00	0.4252E+00	0.1221E+01	0.2650E+01	0.3116E+01
0.55	0.1397E+00	0.2123E+00	0.5088E+00	0.1164E+01	0.2192E+01
0.59	0.1601E+00	0.3386E-01	0.3723E+00	0.4878E+00	0.1224E+01
0.63	0.7129E-01	0.9955E-01	0.1490E+00	0.3081E+00	0.4638E+00
0.67	0.1125E+00	0.5836E-01	0.1370E+00	0.1669E+00	0.2788E+00
0.71	0.7124E-01	0.1421E+00	0.8982E-01	0.2018E+00	0.2368E+00
0.75	0.9899E-01	0.1440E+00	0.1976E+00	0.1331E+00	0.2611E+00
0.79	0.5860E-01	0.2214E+00	0.2476E+00	0.2136E+00	0.3104E+00
0.83	0.9781E-01	0.1426E+00	0.3266E+00	0.2173E+00	0.3455E+00
0.87	0.6015E-01	0.8909E-01	0.1511E+00	0.2261E+00	0.3766E+00
0.90	0.7572E-01	0.2348E-01	0.1153E+00	0.1385E+00	0.3062E+00
0.94	0.3133E-01	0.4891E-01	0.4593E-01	0.1390E+00	0.2145E+00
0.98	0.5148E-01	0.1163E-01	0.7324E-01	0.6982E-01	0.1877E+00
1.02	0.2008E-01	0.2589E-01	0.3603E-01	0.4368E-01	0.1232E+00
1.06	0.4603E-01	-0.4610E-02	0.6703E-01	0.6289E-02	0.8636E-01
1.10	0.2005E-01	0.1643E-01	0.1019E-01	0.2254E-01	0.7797E-01
1.14	0.4609E-01	-0.1165E-01	0.3508E-01	-0.7963E-02	0.6565E-01
1.18	0.1936E-01	0.1258E-01	-0.1378E-01	0.1646E-01	0.6044E-01

TABLE 8.7
PITCH SPECTRAL DENSITY
120 ft WPB
46.20 ft LCG

Column

1 Runs 352
2 Runs 353
3 Runs 354, 356
4 Runs 357, 358
5 Runs 359, 360
6 Runs 361, 362

2.9 ft Significant Wave Height
13.7% Beam

SPEED knots	10	15	20	25	30	35
C _v	0.646	0.970	1.293	1.616	1.939	2.263
Fre- quency Hz	Spectral Estimates deg ² /Hz					
0.00	0.3937E-01	0.2388E+00	0.1486E+00	0.2071E+00	0.6372E-01	0.1023E-01
0.04	0.6245E-01	0.1655E+00	0.1343E+00	0.1403E+00	0.5657E-01	0.2044E-01
0.08	0.1062E+00	0.1015E+00	0.9188E-01	0.9326E-01	0.5053E-01	0.2845E-01
0.12	0.1442E+00	0.6813E-01	0.4037E-01	0.1196E+00	0.5009E-01	0.3481E-01
0.16	0.1154E+00	0.1128E-01	0.1946E-01	0.9258E-01	0.7597E-01	0.2971E-01
0.20	0.4569E+00	0.2266E-01	0.5809E-02	0.2606E-01	0.7383E-01	0.3364E-01
0.24	0.2480E+01	0.2713E+00	0.4550E-01	0.1438E-01	0.2919E-01	0.3617E-01
0.28	0.6230E+01	0.1566E+01	0.2889E+00	0.3319E-01	0.1169E-01	0.3281E-01
0.32	0.7760E+01	0.3930E+01	0.1066E+01	0.1819E+00	0.4270E-01	0.2600E-01
0.35	0.5207E+01	0.4815E+01	0.1845E+01	0.4972E+00	0.1712E+00	0.3917E-01
0.39	0.2423E+01	0.3132E+01	0.1934E+01	0.9500E+00	0.3676E+00	0.1267E+00
0.43	0.8549E+00	0.1373E+01	0.1632E+01	0.9760E+00	0.5925E+00	0.2716E+00
0.47	0.2338E+00	0.6040E+00	0.9877E+00	0.6841E+00	0.5926E+00	0.3634E+00
0.51	0.5603E-01	0.1948E+00	0.4098E+00	0.5803E+00	0.3817E+00	0.3755E+00
0.55	0.6508E-02	0.3712E-01	0.1571E+00	0.3354E+00	0.3281E+00	0.2807E+00
0.59	0.5388E-02	0.3923E-02	0.6022E-01	0.1311E+00	0.2900E+00	0.1900E+00
0.63	0.7368E-02	0.4789E-02	0.1301E-01	0.5833E-01	0.1405E+00	0.1783E+00
0.67	0.5539E-02	0.9967E-03	0.7541E-02	0.3138E-01	0.5597E-01	0.1255E+00
0.71	0.6460E-02	0.7788E-02	0.7620E-02	0.1319E-01	0.2788E-01	0.6227E-01
0.75	0.7756E-02	0.9801E-02	0.1670E-01	0.1801E-01	0.1093E-01	0.3902E-01
0.79	0.9140E-02	0.2109E-01	0.2306E-01	0.3585E-01	0.2219E-01	0.3668E-01
0.83	0.4505E-02	0.1821E-01	0.3577E-01	0.5236E-01	0.3778E-01	0.5180E-01
0.87	0.2460E-02	0.9041E-02	0.2506E-01	0.4072E-01	0.3390E-01	0.9442E-01
0.90	0.2193E-02	0.2633E-02	0.1067E-01	0.2656E-01	0.2311E-01	0.1068E+00
0.94	0.2191E-02	0.4025E-02	0.4520E-02	0.1856E-01	0.2239E-01	0.6229E-01
0.98	0.4618E-03	0.1039E-02	0.2733E-02	0.1552E-01	0.1600E-01	0.2419E-01
1.02	0.1294E-02	0.1874E-02	0.1454E-02	0.1680E-01	0.1001E-01	0.2094E-01
1.06	0.2425E-03	-0.6885E-03	0.2240E-02	0.1467E-01	0.6595E-02	0.2019E-01
1.10	0.3145E-03	0.1015E-02	0.1122E-02	0.6866E-02	0.6482E-02	0.1424E-01
1.14	-0.1914E-03	-0.1312E-02	0.2149E-02	0.5567E-02	0.5365E-02	0.1007E-01
1.18	0.2147E-03	0.3275E-03	0.8867E-03	0.4547E-02	0.5787E-02	0.1220E-01

TABLE 8.8
PITCH SPECTRAL DENSITY
120 ft WPB
46.20 ft LCG

Column	
1	Runs 363
2	Runs 364, 365
3	Runs 371, 372
4	Runs 373, 374
5	Runs 375, 376, 377

4.6 ft Significant Wave Height
21.7% Beam

SPEED knots	10	15	20	25	30
C_v	0.646	0.970	1.293	1.616	1.939
Fre- quency Hz	Spectral Estimates deg ² /Hz				
0.00	0.2690E+00	0.7974E+00	0.5924E+00	0.3053E+00	0.3822E+00
0.04	0.5015E+00	0.9374E+00	0.6544E+00	0.2719E+00	0.4721E+00
0.08	0.6760E+00	0.5649E+00	0.4599E+00	0.2589E+00	0.4467E+00
0.12	0.6294E+00	0.1919E+00	0.1361E+00	0.2665E+00	0.2787E+00
0.16	0.2184E+01	0.4410E+00	0.4366E-01	0.2118E+00	0.2396E+00
0.20	0.7868E+01	0.2974E+01	0.8125E+00	0.2731E+00	0.3003E+00
0.24	0.1419E+02	0.7955E+01	0.3629E+01	0.1399E+01	0.4985E+00
0.28	0.1912E+02	0.1386E+02	0.6941E+01	0.3192E+01	0.1478E+01
0.32	0.1953E+02	0.1652E+02	0.9558E+01	0.5487E+01	0.3069E+01
0.35	0.1174E+02	0.1378E+02	0.1064E+02	0.7735E+01	0.4611E+01
0.39	0.4557E+01	0.8555E+01	0.8484E+01	0.7198E+01	0.5633E+01
0.43	0.1310E+01	0.3410E+01	0.4869E+01	0.5576E+01	0.4910E+01
0.47	0.3143E+00	0.9931E+00	0.2278E+01	0.3386E+01	0.3317E+01
0.51	0.1214E+00	0.2602E+00	0.8401E+00	0.1750E+01	0.2061E+01
0.55	0.4227E-01	0.6211E-01	0.3028E+00	0.7785E+00	0.1266E+01
0.59	0.8602E-02	-0.2505E-02	0.1093E+00	0.2704E+00	0.6596E+00
0.63	0.1545E-01	0.2381E-01	0.2505E-01	0.9363E-01	0.2812E+00
0.67	0.1534E-01	0.3550E-01	0.2443E-02	0.6508E-01	0.1394E+00
0.71	0.2216E-01	0.7608E-01	0.4614E-01	0.2824E-01	0.7628E-01
0.75	0.1421E-01	0.8289E-01	0.1185E+00	0.5767E-01	0.5878E-01
0.79	0.1358E-01	0.8024E-01	0.1014E+00	0.1034E+00	0.8321E-01
0.83	0.7205E-02	0.4269E-01	0.5377E-01	0.1068E+00	0.1133E+00
0.87	0.6812E-02	0.3333E-01	0.3986E-01	0.9169E-01	0.1387E+00
0.90	-0.1165E-03	0.1929E-01	0.2261E-01	0.5843E-01	0.9659E-01
0.94	0.1053E-02	0.1790E-01	0.2482E-01	0.2288E-01	0.6068E-01
0.98	-0.3667E-02	-0.1421E-02	0.2010E-01	0.1588E-01	0.3728E-01
1.02	-0.6514E-03	0.4828E-02	0.1517E-01	0.8083E-02	0.3476E-01
1.06	-0.4524E-02	-0.2970E-02	0.1042E-01	0.1267E-01	0.3641E-01
1.10	-0.1538E-02	0.3895E-02	0.7530E-02	0.9938E-02	0.2558E-01
1.14	-0.5238E-02	-0.5282E-02	0.9100E-03	0.1010E-01	0.2358E-01
1.18	-0.1926E-02	0.2667E-02	0.2600E-02	0.6942E-02	0.2597E-01

TABLE 8.9
PITCH SPECTRAL DENSITY
120 ft WPB
46.20 ft LCG

Column					
1	Runs 378, 379				
2	Runs 380, 381, 382				
3	Runs 383, 384, 385				
4	Runs 386, 387, 388, 389				
5	Runs 390, 391, 392, 393				
10.7 ft Significant Wave Height 50.5% Beam					
SPEED knots	10	15	20	25	30
C _v	0.646	0.970	1.293	1.616	1.939
Fre- quency Hz	Spectral Estimates deg ² /Hz				
0.00	0.1530E+01	0.1954E+01	0.2900E+01	0.2308E+01	0.3545E+01
0.04	0.1968E+01	0.2319E+01	0.2508E+01	0.2997E+01	0.3989E+01
0.08	0.4038E+01	0.2448E+01	0.1721E+01	0.3173E+01	0.3939E+01
0.12	0.2129E+02	0.1039E+02	0.4076E+01	0.3951E+01	0.3722E+01
0.16	0.5588E+02	0.3513E+02	0.1915E+02	0.1147E+02	0.5326E+01
0.20	0.7060E+02	0.6119E+02	0.4327E+02	0.2893E+02	0.1553E+02
0.24	0.6501E+02	0.6713E+02	0.5470E+02	0.4145E+02	0.2970E+02
0.28	0.5752E+02	0.5915E+02	0.4740E+02	0.4496E+02	0.3772E+02
0.32	0.4546E+02	0.4137E+02	0.3961E+02	0.3753E+02	0.3735E+02
0.35	0.2162E+02	0.2608E+02	0.2576E+02	0.2836E+02	0.2769E+02
0.39	0.5859E+01	0.1316E+02	0.1384E+02	0.1763E+02	0.1807E+02
0.43	0.1486E+01	0.3629E+01	0.8011E+01	0.7221E+01	0.1075E+02
0.47	0.4177E+00	0.1075E+01	0.2810E+01	0.5213E+01	0.5096E+01
0.51	0.1590E+00	0.2405E+00	0.8980E+00	0.3263E+01	0.3237E+01
0.55	0.1076E+00	0.1235E+00	0.4028E+00	0.1184E+01	0.2251E+01
0.59	0.1044E+00	-0.1573E-01	0.2170E+00	0.2268E+00	0.1244E+01
0.63	0.9542E-01	0.1171E+00	0.1119E+00	0.1931E+00	0.6201E+00
0.67	0.9011E-01	0.9173E-01	0.1495E+00	0.1130E+00	0.3112E+00
0.71	0.9548E-01	0.2342E+00	0.2121E+00	0.2009E+00	0.2193E+00
0.75	0.8866E-01	0.1521E+00	0.3603E+00	0.1941E+00	0.2602E+00
0.79	0.6692E-01	0.1401E+00	0.2432E+00	0.4423E+00	0.2877E+00
0.83	0.4427E-01	0.6171E-02	0.1676E+00	0.4241E+00	0.2363E+00
0.87	0.2849E-01	0.4251E-01	0.6762E-01	0.3012E+00	0.2602E+00
0.90	0.2847E-01	-0.1088E-01	0.5357E-01	0.8290E-01	0.3092E+00
0.94	0.2574E-01	0.4041E-01	0.3520E-01	0.1206E+00	0.2162E+00
0.98	0.1967E-01	-0.1132E-01	0.5627E-01	0.5453E-01	0.1013E+00
1.02	0.1342E-01	0.2815E-01	0.1210E-01	0.7876E-01	0.6419E-01
1.06	0.1530E-01	-0.2326E-01	0.2498E-01	-0.7625E-02	0.7446E-01
1.10	0.1554E-01	0.2086E-01	0.1442E-02	0.3033E-01	0.7716E-01
1.14	0.1504E-01	-0.2457E-01	0.2421E-01	-0.1852E-01	0.6690E-01
1.18	0.1194E-01	0.1858E-01	0.5994E-02	0.3844E-01	0.6122E-01

TABLE 9.1
HEAVE SPECTRAL DENSITY
120 ft WPB
39.60 ft LCG

Column						
1	Runs 305					
2	Runs 306					
3	Runs 307, 308					
4	Runs 309, 310					
5	Runs 311, 312					
6	Runs 313, 314					
2.9 ft Significant Wave Height 13.7% Beam						
SPEED knots	10	15	20	25	30	35
C _v	0.646	0.970	1.293	1.616	1.939	2.263
Fre- quency Hz	Spectral Estimates ft ² /Hz					
0.00	0.1260E-01	0.6591E-01	0.2770E+00	0.3685E+00	0.4148E-01	0.8163E-01
0.04	0.1494E-01	0.8890E-01	0.1800E+00	0.1956E+00	0.5450E-01	0.6040E-01
0.08	0.3731E-01	0.6817E-01	0.6375E-01	0.5650E-01	0.7108E-01	0.7301E-01
0.12	0.5084E-01	0.3271E-01	0.5458E-01	0.5177E-01	0.7640E-01	0.1128E+00
0.16	0.3959E-01	0.1875E-01	0.5210E-01	0.5170E-01	0.6629E-01	0.9404E-01
0.20	0.8707E-01	0.1606E-01	0.2698E-01	0.2919E-01	0.7024E-01	0.6780E-01
0.24	0.2865E+00	0.7804E-01	0.2647E-01	0.2804E-01	0.5050E-01	0.5231E-01
0.28	0.4257E+00	0.2892E+00	0.1141E+00	0.4473E-01	0.2831E-01	0.4286E-01
0.32	0.3751E+00	0.5884E+00	0.3402E+00	0.1340E+00	0.3376E-01	0.3566E-01
0.35	0.2701E+00	0.6272E+00	0.6101E+00	0.2528E+00	0.1053E+00	0.6154E-01
0.39	0.1477E+00	0.4250E+00	0.5732E+00	0.3473E+00	0.1713E+00	0.1045E+00
0.43	0.6290E-01	0.2089E+00	0.3599E+00	0.2886E+00	0.1961E+00	0.1131E+00
0.47	0.2109E-01	0.8753E-01	0.1803E+00	0.1722E+00	0.1807E+00	0.1233E+00
0.51	0.7213E-02	0.2886E-01	0.6111E-01	0.1301E+00	0.1019E+00	0.1408E+00
0.55	0.1437E-02	0.3875E-02	0.2057E-01	0.5578E-01	0.6109E-01	0.1020E+00
0.59	0.1381E-02	0.7273E-03	0.4665E-02	0.1918E-01	0.5421E-01	0.5549E-01
0.63	0.1642E-03	-0.2034E-03	0.2407E-02	0.9599E-02	0.3529E-01	0.4709E-01
0.67	0.6355E-03	-0.6683E-04	0.1539E-03	0.7483E-02	0.1740E-01	0.4904E-01
0.71	-0.9842E-04	-0.2068E-03	0.1104E-02	0.4561E-02	0.1033E-01	0.3393E-01
0.75	0.5015E-03	0.4128E-03	-0.1121E-03	0.4207E-02	0.7219E-02	0.1845E-01
0.79	0.1275E-03	0.5381E-03	0.1256E-02	0.1265E-02	0.5386E-02	0.1191E-01
0.83	0.7174E-03	0.7800E-03	0.5668E-03	0.2316E-02	0.4088E-02	0.1155E-01
0.87	0.2538E-03	0.3598E-03	0.1415E-02	0.1553E-02	0.3119E-02	0.9154E-02
0.90	0.6732E-03	0.6397E-03	0.2478E-03	0.3177E-02	0.2848E-02	0.4648E-02
0.94	-0.1707E-04	0.3521E-03	0.1059E-02	0.2054E-02	0.3500E-02	0.4322E-02
0.98	0.2786E-03	0.3637E-03	0.2063E-03	0.2804E-02	0.2143E-02	0.2905E-02
1.02	-0.1279E-03	0.1468E-03	0.6458E-03	0.9618E-03	0.2195E-02	0.1809E-02
1.06	0.2481E-03	0.2851E-03	-0.5761E-04	0.2084E-02	0.2169E-02	0.2181E-02
1.10	-0.1351E-03	-0.1028E-06	0.8978E-03	0.1479E-02	0.1883E-02	0.2330E-02
1.14	0.2675E-03	0.1273E-03	0.2800E-03	0.2570E-02	0.1097E-02	0.2103E-02
1.18	-0.1185E-03	-0.5899E-04	0.8766E-03	0.1509E-02	0.7200E-03	0.2154E-02

TABLE 9.2
HEAVE SPECTRAL DENSITY
120 ft WPB
39.60 ft LCG

Column						
1	Runs 315					
2	Runs 316					
3	Runs 317, 319					
4	Runs 320, 321					
5	Runs 322, 328					
6	Runs 329, 330, 331					
4.6 ft Significant Wave Height 21.7% Beam						
SPEED knots	10	10	15	20	25	30
C _v	0.646	0.646	0.970	1.293	1.616	1.939
Fre- quency Hz	Spectral Estimates ft ² /Hz					
0.00	0.2412E-01	0.1076E-01	0.2717E+00	0.2821E+00	0.7256E+00	0.1213E+00
0.04	0.8856E-01	0.1358E+00	0.3581E+00	0.2096E+00	0.4393E+00	0.2271E+00
0.08	0.1796E+00	0.3677E+00	0.2520E+00	0.1241E+00	0.1689E+00	0.3631E+00
0.12	0.2420E+00	0.3691E+00	0.1166E+00	0.8117E-01	0.1385E+00	0.3021E+00
0.16	0.9023E+00	0.8913E+00	0.2724E+00	0.1995E+00	0.1786E+00	0.2109E+00
0.20	0.2531E+01	0.2213E+01	0.1065E+01	0.6386E+00	0.3732E+00	0.2672E+00
0.24	0.2943E+01	0.2526E+01	0.2325E+01	0.1485E+01	0.1022E+01	0.5894E+00
0.28	0.2126E+01	0.1757E+01	0.3233E+01	0.2657E+01	0.2022E+01	0.1341E+01
0.32	0.1368E+01	0.1177E+01	0.3311E+01	0.4135E+01	0.2899E+01	0.2571E+01
0.35	0.6865E+00	0.7514E+00	0.2632E+01	0.4284E+01	0.3736E+01	0.3329E+01
0.39	0.3080E+00	0.3424E+00	0.1462E+01	0.2921E+01	0.3269E+01	0.3283E+01
0.43	0.1024E+00	0.9878E-01	0.4991E+00	0.1339E+01	0.2085E+01	0.2429E+01
0.47	0.2875E-01	0.2182E-01	0.1312E+00	0.4141E+00	0.1041E+01	0.1317E+01
0.51	0.9000E-02	0.7735E-02	0.3651E-01	0.1309E+00	0.4097E+00	0.6632E+00
0.55	0.6501E-02	0.5026E-02	0.1471E-01	0.3039E-01	0.1619E+00	0.3436E+00
0.59	-0.4454E-03	0.1609E-02	0.1481E-02	0.9672E-02	0.7944E-01	0.1724E+00
0.63	0.2237E-02	0.5731E-03	0.1837E-02	0.1445E-02	0.4159E-01	0.8715E-01
0.67	-0.6209E-03	0.2225E-03	0.5174E-03	0.5803E-02	0.2505E-01	0.3471E-01
0.71	0.2883E-02	0.9450E-03	0.3453E-02	0.2753E-02	0.1749E-01	0.2001E-01
0.75	0.3766E-03	0.4854E-03	0.3295E-02	0.9103E-02	0.1578E-01	0.1933E-01
0.79	0.2453E-02	0.1353E-02	0.5064E-02	0.4450E-02	0.1996E-01	0.1733E-01
0.83	0.1827E-03	0.1391E-02	0.3155E-02	0.5919E-02	0.2113E-01	0.1268E-01
0.87	0.2072E-02	0.9921E-03	0.3050E-02	0.5209E-02	0.1588E-01	0.1068E-01
0.90	-0.3513E-03	0.1531E-03	0.1245E-02	0.7529E-02	0.1571E-01	0.1068E-01
0.94	0.1295E-02	0.1982E-03	0.1956E-02	0.5147E-02	0.1665E-01	0.1271E-01
0.98	-0.8439E-03	-0.1391E-03	-0.2343E-03	0.6065E-02	0.1457E-01	0.8258E-02
1.02	0.9785E-03	0.1524E-03	0.9099E-03	0.2980E-02	0.1112E-01	0.5366E-02
1.06	-0.7484E-03	-0.1634E-03	-0.4483E-03	0.4608E-02	0.1065E-01	0.6729E-02
1.10	0.1034E-02	0.7850E-04	0.5106E-03	0.2632E-02	0.9850E-02	0.6492E-02
1.14	-0.7767E-03	-0.2155E-03	-0.4347E-03	0.4222E-02	0.9711E-02	0.6472E-02
1.18	0.1020E-02	-0.7632E-06	0.8594E-03	0.1775E-02	0.1032E-01	0.6790E-02

TABLE 9.3
HEAVE SPECTRAL DENSITY
120 ft WPB
39.60 ft LCG

Column

1 Runs 332, 333
2 Runs 334, 335, 336
3 Runs 337, 338, 339
4 Runs 340, 341, 342, 344
5 Runs 345, 346, 347, 348

10.7 ft Significant Wave Height
50.5% Beam

SPEED knots	10	15	20	25	30
C _v	0.646	0.970	1.293	1.616	1.939
Fre- quency Hz	Spectral Estimates ft ² /Hz				
0.00	0.1495E+00	0.1459E+01	0.2747E+01	0.3885E+01	0.4594E+01
0.04	0.3820E+00	0.1597E+01	0.2779E+01	0.2920E+01	0.6015E+01
0.08	0.4722E+01	0.2587E+01	0.3437E+01	0.2233E+01	0.5986E+01
0.12	0.2512E+02	0.1566E+02	0.1036E+02	0.4091E+01	0.6474E+01
0.16	0.4389E+02	0.3688E+02	0.2796E+02	0.1531E+02	0.1761E+02
0.20	0.3395E+02	0.4268E+02	0.4361E+02	0.3582E+02	0.4233E+02
0.24	0.1619E+02	0.3124E+02	0.4465E+02	0.5006E+02	0.5555E+02
0.28	0.7406E+01	0.1878E+02	0.3567E+02	0.4526E+02	0.4827E+02
0.32	0.4072E+01	0.1031E+02	0.2675E+02	0.2700E+02	0.3879E+02
0.35	0.1871E+01	0.5613E+01	0.1431E+02	0.1631E+02	0.2477E+02
0.39	0.5374E+00	0.2908E+01	0.5462E+01	0.9454E+01	0.1203E+02
0.43	0.1540E+00	0.1043E+01	0.2351E+01	0.3648E+01	0.5646E+01
0.47	0.5875E-01	0.3326E+00	0.6975E+00	0.1546E+01	0.2296E+01
0.51	0.3200E-01	0.7397E-01	0.2136E+00	0.6785E+00	0.1166E+01
0.55	0.1144E-01	0.4697E-01	0.8963E-01	0.2230E+00	0.5444E+00
0.59	0.3146E-02	-0.1720E-02	0.9221E-01	0.1097E+00	0.1671E+00
0.63	-0.2471E-02	0.1860E-01	0.5931E-01	0.8086E-01	0.9971E-01
0.67	-0.9726E-03	-0.9674E-04	0.7284E-01	0.7221E-01	0.9259E-01
0.71	-0.1908E-02	0.2198E-01	0.3795E-01	0.6501E-01	0.6334E-01
0.75	-0.1466E-04	0.4465E-02	0.2366E-01	0.3610E-01	0.5766E-01
0.79	-0.1630E-02	0.1501E-01	0.7850E-02	0.1866E-01	0.3408E-01
0.83	-0.8210E-03	-0.5563E-02	0.1971E-01	-0.6810E-03	0.2981E-01
0.87	-0.2384E-02	0.8553E-02	0.6912E-02	-0.7024E-02	0.2434E-01
0.90	-0.2043E-02	-0.6222E-02	0.1704E-01	-0.1996E-02	0.2077E-01
0.94	-0.3447E-02	0.7925E-02	0.1336E-01	0.1091E-02	0.1779E-01
0.98	-0.2754E-02	-0.4293E-02	0.2512E-01	-0.2475E-02	0.8142E-02
1.02	-0.3308E-02	0.7154E-02	0.1057E-01	-0.2933E-02	0.2637E-02
1.06	-0.2495E-02	-0.7300E-02	0.1580E-01	-0.4957E-03	0.4444E-02
1.10	-0.3625E-02	0.4321E-02	0.5614E-02	-0.2195E-02	0.1586E-02
1.14	-0.2969E-02	-0.8031E-02	0.7121E-02	-0.3303E-02	-0.8127E-02
1.18	-0.3749E-02	0.3752E-02	-0.3295E-02	-0.3715E-02	-0.8713E-02

TABLE 9.4
HEAVE SPECTRAL DENSITY
120 ft WPB
42.90 ft LCG

Column						
1	Runs 233					
2	Runs 234					
3	Runs 235, 236					
4	Runs 237, 241					
5	Runs 242, 243					
6	Runs 244, 245					
2.9 ft Significant Wave Height 13.7% Beam						
SPEED knots	10	15	20	25	30	35
C _v	0.646	0.970	1.293	1.616	1.939	2.263
Fre- quency Hz	Spectral Estimates ft ² /Hz					
0.00	0.6548E-02	0.5766E-01	0.1025E+00	0.3328E+00	0.7072E-01	0.1122E+00
0.04	0.2205E-01	0.5200E-01	0.8776E-01	0.2499E+00	0.6840E-01	0.8164E-01
0.08	0.6554E-01	0.4453E-01	0.6326E-01	0.1211E+00	0.8077E-01	0.4607E-01
0.12	0.7208E-01	0.4359E-01	0.4182E-01	0.3740E-01	0.8767E-01	0.7730E-01
0.16	0.5114E-01	0.1933E-01	0.2382E-01	0.1988E-01	0.6830E-01	0.1048E+00
0.20	0.1065E+00	0.1569E-01	0.5996E-02	0.1295E-01	0.6154E-01	0.7943E-01
0.24	0.3002E+00	0.7442E-01	0.1382E-01	0.1806E-01	0.4332E-01	0.3617E-01
0.28	0.4453E+00	0.2495E+00	0.1272E+00	0.4276E-01	0.4250E-01	0.4392E-01
0.32	0.4038E+00	0.4890E+00	0.4062E+00	0.1640E+00	0.5046E-01	0.5693E-01
0.35	0.2574E+00	0.5710E+00	0.5339E+00	0.2718E+00	0.1258E+00	0.6598E-01
0.39	0.1200E+00	0.4132E+00	0.4710E+00	0.3285E+00	0.1947E+00	0.1558E+00
0.43	0.4151E-01	0.2043E+00	0.3582E+00	0.3053E+00	0.1799E+00	0.1893E+00
0.47	0.1272E-01	0.8407E-01	0.1925E+00	0.1575E+00	0.1557E+00	0.1400E+00
0.51	0.5900E-02	0.2753E-01	0.7495E-01	0.1051E+00	0.7584E-01	0.1039E+00
0.55	0.1984E-02	0.6080E-02	0.2087E-01	0.5090E-01	0.4170E-01	0.5761E-01
0.59	0.1541E-02	0.9008E-03	0.3880E-02	0.1523E-01	0.3046E-01	0.2283E-01
0.63	0.2017E-03	0.9647E-03	-0.4874E-03	0.5258E-02	0.1263E-01	0.2434E-01
0.67	0.1707E-03	0.6035E-03	0.8515E-03	0.4714E-02	0.5537E-02	0.1841E-01
0.71	-0.7109E-04	0.1250E-02	0.4606E-04	0.2053E-02	0.5087E-02	0.8465E-02
0.75	0.3830E-03	0.6104E-03	0.1002E-02	0.3246E-02	0.2184E-02	0.6088E-02
0.79	0.6980E-04	0.9179E-03	0.8282E-03	0.1187E-02	0.1743E-02	0.4277E-02
0.83	0.2459E-03	0.6624E-03	0.1558E-02	0.2506E-02	0.1103E-02	0.2808E-02
0.87	0.1530E-04	0.7347E-03	0.4886E-03	0.1501E-02	0.1274E-02	0.2845E-02
0.90	0.3248E-03	0.3140E-03	0.7843E-03	0.2616E-02	0.6023E-03	0.2280E-02
0.94	0.3011E-04	0.5476E-03	0.1309E-03	0.9102E-03	0.9789E-03	0.2577E-02
0.98	0.1931E-03	0.3599E-03	0.6749E-03	0.2196E-02	0.7657E-03	0.1566E-02
1.02	-0.8016E-05	0.5974E-03	0.9956E-04	0.1262E-02	0.1513E-02	0.1534E-02
1.06	0.1747E-03	0.2012E-03	0.6418E-03	0.1963E-02	0.5888E-03	0.1166E-02
1.10	-0.6305E-04	0.4128E-03	0.6093E-04	0.6448E-03	0.8271E-03	0.1385E-02
1.14	0.1435E-03	0.2769E-03	0.6683E-03	0.1478E-02	0.6525E-03	0.1909E-02
1.18	-0.3610E-04	0.5997E-03	0.2938E-04	0.2721E-03	0.1217E-02	0.2073E-02

TABLE 9.5
HEAVE SPECTRAL DENSITY
120 ft WPB
42.90 ft LCG

Column					
1	Runs 246				
2	Runs 247, 248				
3	Runs 263, 264				
4	Runs 265, 267				
5	Runs 271, 272, 273				
4.6 ft Significant Wave Height 21.7% Beam					
SPEED knots	10	15	20	25	30
C _v	0.646	0.970	1.293	1.616	1.939
Fre- quency Hz	Spectral Estimates ft ² /Hz				
0.00	0.3564E-02	0.3049E+00	0.2795E+00	0.5984E+00	0.3352E+00
0.04	0.7563E-01	0.3522E+00	0.3091E+00	0.5203E+00	0.2915E+00
0.08	0.3591E+00	0.2862E+00	0.2537E+00	0.3948E+00	0.2446E+00
0.12	0.5351E+00	0.1822E+00	0.1154E+00	0.2095E+00	0.2318E+00
0.16	0.1060E+01	0.2889E+00	0.2582E-01	0.8637E-01	0.1576E+00
0.20	0.2652E+01	0.1161E+01	0.4167E+00	0.2467E+00	0.1745E+00
0.24	0.2898E+01	0.2499E+01	0.1791E+01	0.1022E+01	0.4539E+00
0.28	0.1804E+01	0.3167E+01	0.3752E+01	0.2262E+01	0.1210E+01
0.32	0.1016E+01	0.2808E+01	0.4565E+01	0.4021E+01	0.2265E+01
0.35	0.6024E+00	0.2151E+01	0.3694E+01	0.4976E+01	0.2818E+01
0.39	0.2697E+00	0.1319E+01	0.2496E+01	0.3556E+01	0.2641E+01
0.43	0.6767E-01	0.5440E+00	0.1228E+01	0.1892E+01	0.1784E+01
0.47	0.1601E-01	0.1554E+00	0.4274E+00	0.8608E+00	0.9151E+00
0.51	0.6321E-02	0.3686E-01	0.1130E+00	0.3417E+00	0.4609E+00
0.55	0.3546E-02	0.8087E-02	0.3056E-01	0.9343E-01	0.3037E+00
0.59	0.1809E-03	0.3559E-02	0.1995E-02	0.2027E-01	0.1252E+00
0.63	0.9734E-03	0.1533E-02	0.8250E-03	0.2825E-03	0.3183E-01
0.67	0.6864E-04	0.2591E-02	-0.1857E-02	0.2877E-02	0.1065E-01
0.71	0.1243E-02	0.2805E-02	0.3727E-02	0.9631E-03	0.1614E-01
0.75	0.1405E-04	0.3612E-02	0.2710E-02	0.6835E-02	0.9753E-02
0.79	0.9232E-03	0.3512E-02	0.5057E-02	0.6052E-02	0.8723E-02
0.83	0.3019E-03	0.4597E-02	0.1951E-02	0.1098E-01	0.4191E-02
0.87	0.6725E-03	0.2924E-02	0.3826E-02	0.6806E-02	0.4827E-02
0.90	-0.4506E-03	0.2137E-02	0.8415E-03	0.5313E-02	0.2791E-02
0.94	0.2524E-03	0.1316E-02	0.3610E-02	0.1288E-03	0.7434E-02
0.98	-0.4878E-03	0.1525E-02	0.3748E-03	0.1828E-02	0.5759E-02
1.02	0.2900E-03	0.9266E-03	0.1715E-02	-0.1010E-03	0.5920E-02
1.06	-0.3955E-03	0.1283E-02	-0.1757E-03	0.3807E-02	0.4042E-02
1.10	0.2534E-03	0.1033E-02	0.1361E-02	0.1447E-02	0.5329E-02
1.14	-0.4071E-03	0.1507E-02	-0.1462E-02	0.2982E-02	0.2877E-02
1.18	0.2372E-03	0.1442E-02	0.5668E-03	0.2484E-03	0.5214E-02

TABLE 9.6
HEAVE SPECTRAL DENSITY
120 ft WPB
42.90 ft LCG

Column					
1	Runs 274, 275				
2	Runs 276, 277, 278				
3	Runs 290, 291, 292				
4	Runs 293, 294, 295, 296				
5	Runs 297, 298, 299, 300				
10.7 ft Significant Wave Height 50.5% Beam					
SPEED knots	10	15	20	25	30
C _v	0.646	0.970	1.293	1.616	1.939
Fre- quency Hz	Spectral Estimates ft ² /Hz				
0.00	0.4357E+00	0.1096E+01	0.2446E+01	0.4420E+01	0.3856E+01
0.04	0.7020E+00	0.1330E+01	0.1795E+01	0.3310E+01	0.4765E+01
0.08	0.6083E+01	0.2324E+01	0.1539E+01	0.2314E+01	0.4848E+01
0.12	0.2567E+02	0.1428E+02	0.8233E+01	0.5312E+01	0.5552E+01
0.16	0.4147E+02	0.3691E+02	0.2636E+02	0.1996E+02	0.1550E+02
0.20	0.3312E+02	0.4390E+02	0.3886E+02	0.4049E+02	0.3882E+02
0.24	0.1688E+02	0.2922E+02	0.3742E+02	0.4895E+02	0.5222E+02
0.28	0.6773E+01	0.1658E+02	0.2835E+02	0.4457E+02	0.4671E+02
0.32	0.2663E+01	0.9305E+01	0.2111E+02	0.3037E+02	0.3783E+02
0.35	0.1195E+01	0.5328E+01	0.1219E+02	0.1738E+02	0.2406E+02
0.39	0.4879E+00	0.2568E+01	0.4803E+01	0.8730E+01	0.1162E+02
0.43	0.1986E+00	0.8770E+00	0.2261E+01	0.3046E+01	0.5358E+01
0.47	0.5330E-01	0.2815E+00	0.7024E+00	0.1274E+01	0.2027E+01
0.51	0.2100E-01	0.6857E-01	0.2242E+00	0.4975E+00	0.9603E+00
0.55	0.8917E-02	0.2181E-01	0.3364E-01	0.2346E+00	0.5057E+00
0.59	0.5698E-02	-0.3265E-02	0.6489E-01	0.1129E+00	0.2295E+00
0.63	-0.1910E-02	0.2508E-02	0.2154E-03	0.9997E-01	0.1337E+00
0.67	-0.2244E-03	0.1106E-02	0.3794E-01	0.4794E-01	0.8118E-01
0.71	-0.1939E-02	0.5516E-02	-0.1304E-01	0.6613E-01	0.7881E-01
0.75	0.2127E-03	0.3073E-02	0.3013E-01	0.1353E-01	0.9737E-01
0.79	-0.2777E-02	0.7088E-02	-0.4653E-02	0.3183E-01	0.7537E-01
0.83	-0.1235E-02	0.2626E-02	0.2770E-01	0.5415E-02	0.4183E-01
0.87	-0.2872E-02	0.3028E-02	-0.1637E-01	0.1915E-01	0.3474E-01
0.90	-0.1490E-02	-0.7648E-03	0.1217E-01	0.2674E-02	0.4375E-01
0.94	-0.3539E-02	0.3276E-03	-0.1902E-01	0.2449E-01	0.4914E-01
0.98	-0.2187E-02	-0.3708E-02	0.1208E-01	0.8332E-02	0.3483E-01
1.02	-0.3610E-02	-0.2161E-02	-0.1771E-01	0.1737E-01	0.2104E-01
1.06	-0.2373E-02	-0.3356E-02	0.1397E-01	0.1949E-02	0.1974E-01
1.10	-0.3815E-02	-0.1442E-02	-0.1638E-01	0.1619E-01	0.2268E-01
1.14	-0.2290E-02	-0.4135E-02	0.1067E-01	-0.1595E-02	0.1726E-01
1.18	-0.3726E-02	-0.2260E-02	-0.1849E-01	0.1009E-01	0.2259E-01

TABLE 9.7
HEAVE SPECTRAL DENSITY
120 ft WPB
46.20 ft LCG

Column	
1	Runs 352
2	Runs 353
3	Runs 354, 356
4	Runs 357, 358
5	Runs 359, 360
6	Runs 361, 362

2.9 ft Significant Wave Height
13.7% Beam

SPEED knots	10	15	20	25	30	35
C_v	0.646	0.970	1.293	1.616	1.939	2.263
Fre- quency Hz	Spectral Estimates ft ² /Hz					
0.00	0.1368E-01	0.3769E-01	0.1372E+00	0.5435E+00	0.7399E-01	0.1098E+00
0.04	0.1103E-01	0.3416E-01	0.1030E+00	0.2924E+00	0.6256E-01	0.6748E-01
0.08	0.1417E-01	0.2370E-01	0.4299E-01	0.5737E-01	0.3758E-01	0.2431E-01
0.12	0.2395E-01	0.1322E-01	0.2580E-01	0.2692E-01	0.2499E-01	0.2240E-01
0.16	0.3019E-01	0.6244E-02	0.3965E-01	0.2122E-01	0.2038E-01	0.1671E-01
0.20	0.8530E-01	0.1202E-01	0.2661E-01	0.9988E-02	0.1985E-01	0.2461E-01
0.24	0.2689E+00	0.6669E-01	0.2708E-01	0.1541E-01	0.1407E-01	0.2488E-01
0.28	0.4496E+00	0.2537E+00	0.1045E+00	0.3046E-01	0.1203E-01	0.2198E-01
0.32	0.4172E+00	0.5620E+00	0.3435E+00	0.9143E-01	0.2951E-01	0.2385E-01
0.35	0.2533E+00	0.6633E+00	0.5611E+00	0.2282E+00	0.9736E-01	0.3330E-01
0.39	0.1190E+00	0.4346E+00	0.5324E+00	0.3859E+00	0.1583E+00	0.6749E-01
0.43	0.3994E-01	0.1864E+00	0.3908E+00	0.3347E+00	0.1850E+00	0.9793E-01
0.47	0.1351E-01	0.7002E-01	0.1985E+00	0.1745E+00	0.1424E+00	0.9793E-01
0.51	0.6102E-02	0.1711E-01	0.6530E-01	0.1120E+00	0.6548E-01	0.7661E-01
0.55	0.2531E-02	0.2086E-02	0.1908E-01	0.4987E-01	0.3617E-01	0.4539E-01
0.59	0.1348E-02	-0.7455E-04	0.8929E-02	0.1317E-01	0.2278E-01	0.2256E-01
0.63	0.9296E-03	0.1719E-03	0.2421E-02	0.3983E-02	0.7952E-02	0.1554E-01
0.67	0.4665E-03	-0.3128E-03	0.1845E-02	0.2855E-02	0.1706E-02	0.8120E-02
0.71	0.2333E-03	0.1450E-03	0.7525E-03	0.1245E-02	0.1201E-02	0.2963E-02
0.75	0.1206E-03	-0.1052E-03	0.1328E-02	0.2899E-02	0.8437E-03	0.1675E-02
0.79	0.2834E-03	0.3757E-03	0.5020E-03	0.2737E-02	0.1110E-02	0.1640E-02
0.83	0.1913E-03	0.2914E-03	0.1147E-02	0.2806E-02	0.1032E-02	0.1299E-02
0.87	0.1433E-03	0.4800E-03	0.8776E-04	0.1276E-02	0.9510E-03	0.1366E-02
0.90	0.7163E-04	0.2109E-03	0.8264E-03	0.1665E-02	0.1092E-02	0.1777E-02
0.94	0.9454E-04	0.4710E-03	0.1396E-03	0.7819E-03	0.1530E-02	0.1898E-02
0.98	0.2126E-04	0.1706E-03	0.5807E-03	0.1207E-02	0.1042E-02	0.9996E-03
1.02	0.1104E-03	0.1943E-03	0.3020E-04	0.7391E-03	0.9450E-03	0.1105E-02
1.06	0.1597E-03	-0.1534E-03	0.6102E-03	0.1200E-02	0.3782E-03	0.1293E-02
1.10	0.1971E-03	0.8695E-04	-0.7071E-04	0.3488E-03	0.4105E-03	0.1161E-02
1.14	0.7691E-04	-0.9021E-04	0.4389E-03	0.8925E-03	0.4000E-03	0.7436E-03
1.18	0.1056E-03	0.1287E-03	-0.1494E-03	0.5142E-03	0.6982E-03	0.7828E-03

TABLE 9.8
HEAVE SPECTRAL DENSITY
120 ft WPB
46.20 ft LCG

Column

1 Runs 363
2 Runs 364, 365
3 Runs 371, 372
4 Runs 373, 374
5 Runs 375, 376, 377

4.6 ft Significant Wave Height
21.7% Beam

SPEED knots	10	15	20	25	30
C_v	0.646	0.970	1.293	1.616	1.939
Fre- quency Hz	Spectral Estimates ft ² /Hz				
0.00	0.6099E-02	0.1411E+00	0.2781E+00	0.3690E+00	0.1296E+00
0.04	0.3262E-01	0.1792E+00	0.2073E+00	0.2329E+00	0.1402E+00
0.08	0.8079E-01	0.1156E+00	0.8334E-01	0.7937E-01	0.1083E+00
0.12	0.1739E+00	0.5940E-01	0.2626E-01	0.3101E-01	0.5719E-01
0.16	0.8543E+00	0.2506E+00	0.3712E-01	0.6210E-01	0.7021E-01
0.20	0.2188E+01	0.1188E+01	0.3771E+00	0.2453E+00	0.1884E+00
0.24	0.2388E+01	0.2147E+01	0.1634E+01	0.1200E+01	0.4706E+00
0.28	0.1702E+01	0.2641E+01	0.2828E+01	0.2394E+01	0.1369E+01
0.32	0.1122E+01	0.2705E+01	0.3373E+01	0.3351E+01	0.2527E+01
0.35	0.5640E+00	0.2141E+01	0.3472E+01	0.3925E+01	0.2900E+01
0.39	0.2336E+00	0.1298E+01	0.2499E+01	0.2936E+01	0.2637E+01
0.43	0.8705E-01	0.4745E+00	0.1169E+01	0.1726E+01	0.1802E+01
0.47	0.3539E-01	0.1129E+00	0.4310E+00	0.7921E+00	0.9137E+00
0.51	0.1848E-01	0.2080E-01	0.1287E+00	0.2983E+00	0.3890E+00
0.55	0.1111E-01	0.4617E-02	0.3087E-01	0.8617E-01	0.1757E+00
0.59	0.4865E-02	-0.3533E-02	0.3283E-02	0.1905E-01	0.6930E-01
0.63	0.4366E-02	0.7361E-03	-0.5865E-03	-0.8599E-03	0.1913E-01
0.67	0.1723E-02	-0.2190E-02	0.5054E-03	0.2933E-02	0.5257E-02
0.71	0.2590E-02	0.2145E-02	0.1922E-02	-0.2195E-02	0.5636E-02
0.75	0.1955E-02	-0.3473E-03	0.3793E-02	0.3176E-02	0.2325E-02
0.79	0.3107E-02	0.3078E-02	0.3111E-02	0.1984E-02	0.2651E-02
0.83	0.1655E-02	0.5801E-03	0.1985E-02	0.5860E-02	0.6602E-03
0.87	0.2321E-02	0.2540E-02	0.2341E-02	0.2077E-02	0.2549E-02
0.90	0.1432E-02	-0.7875E-03	0.1783E-02	0.3606E-02	0.7867E-03
0.94	0.2015E-02	0.1102E-02	0.1856E-02	-0.7816E-03	0.1626E-02
0.98	0.1373E-02	-0.1154E-02	0.1558E-02	0.1068E-02	-0.1303E-03
1.02	0.2290E-02	0.8276E-03	0.9012E-03	-0.1673E-02	0.1429E-02
1.06	0.1203E-02	-0.1487E-02	0.7734E-03	0.1456E-02	-0.7403E-04
1.10	0.1656E-02	0.7481E-03	0.8284E-03	-0.1292E-02	0.1203E-03
1.14	0.1040E-02	-0.1235E-02	-0.9433E-04	0.1244E-02	-0.1339E-02
1.18	0.1842E-02	0.8184E-03	-0.1900E-03	-0.1494E-02	0.5165E-05

TABLE 9.9
HEAVE SPECTRAL DENSITY
120 ft WPB
46.20 ft LCG

Column					
1	Runs 378, 379				
2	Runs 380, 381, 382				
3	Runs 383, 384, 385				
4	Runs 386, 387, 388, 389				
5	Runs 390, 391, 392, 393				
10.7 ft Significant Wave Height 50.5% Beam					
SPEED knots	10	15	20	25	30
C _v	0.646	0.970	1.293	1.616	1.939
Fre- quency Hz	Spectral Estimates ft ² /Hz				
0.00	0.9218E-01	0.5554E+00	0.1071E+01	0.1403E+01	0.1625E+01
0.04	0.2999E+00	0.5196E+00	0.7237E+00	0.1371E+01	0.1741E+01
0.08	0.4514E+01	0.1763E+01	0.7175E+00	0.9865E+00	0.1557E+01
0.12	0.2476E+02	0.1443E+02	0.6690E+01	0.4321E+01	0.2947E+01
0.16	0.4265E+02	0.3505E+02	0.2549E+02	0.1904E+02	0.1147E+02
0.20	0.3246E+02	0.3974E+02	0.3797E+02	0.3769E+02	0.3156E+02
0.24	0.1509E+02	0.2745E+02	0.3433E+02	0.4329E+02	0.4536E+02
0.28	0.6295E+01	0.1565E+02	0.2436E+02	0.3962E+02	0.4340E+02
0.32	0.3107E+01	0.8920E+01	0.1728E+02	0.2796E+02	0.3572E+02
0.35	0.1374E+01	0.5252E+01	0.1003E+02	0.1663E+02	0.2234E+02
0.39	0.3906E+00	0.2495E+01	0.4355E+01	0.8577E+01	0.1083E+02
0.43	0.9912E-01	0.6446E+00	0.1914E+01	0.2589E+01	0.4827E+01
0.47	0.4280E-01	0.2119E+00	0.4795E+00	0.1261E+01	0.1783E+01
0.51	0.1162E-01	0.2170E-01	0.9732E-01	0.6267E+00	0.8756E+00
0.55	0.5617E-02	0.1174E-01	-0.5239E-02	0.2719E+00	0.3943E+00
0.59	-0.6434E-02	-0.2115E-01	-0.2788E-02	0.6695E-01	0.1175E+00
0.63	-0.4800E-02	0.7361E-02	-0.3409E-01	0.8879E-01	0.9839E-01
0.67	-0.7970E-02	-0.1559E-01	0.3200E-02	0.3291E-01	0.8820E-01
0.71	-0.3762E-02	0.8567E-02	-0.1750E-01	0.6779E-01	0.6628E-01
0.75	-0.6611E-02	-0.1228E-01	0.5935E-02	0.4155E-02	0.4568E-01
0.79	-0.3171E-02	0.5150E-02	-0.2129E-01	0.4981E-01	0.3006E-01
0.83	-0.6248E-02	-0.1302E-01	-0.1926E-02	0.1894E-01	0.1842E-01
0.87	-0.4028E-02	0.4281E-02	-0.2371E-01	0.4418E-01	0.2140E-01
0.90	-0.6749E-02	-0.1137E-01	-0.4973E-02	0.1823E-02	0.2902E-01
0.94	-0.4007E-02	0.3116E-02	-0.2250E-01	0.3089E-01	0.2261E-01
0.98	-0.6513E-02	-0.1176E-01	-0.5229E-02	-0.3410E-02	0.6334E-02
1.02	-0.3880E-02	0.2557E-02	-0.2267E-01	0.2930E-01	0.4598E-02
1.06	-0.6148E-02	-0.1101E-01	-0.6569E-02	-0.2080E-02	-0.2581E-03
1.10	-0.3538E-02	0.2377E-02	-0.2285E-01	0.2599E-01	0.4492E-02
1.14	-0.5843E-02	-0.1140E-01	-0.6398E-02	-0.6945E-03	0.2950E-02
1.18	-0.3678E-02	0.1611E-02	-0.2244E-01	0.3179E-01	0.3313E-02

TABLE 10.1
ENCOUNTERED WAVE SPECTRAL DENSITY
120 ft WPB

Column	
1	Runs 352
2	Runs 353
3	Runs 354, 356
4	Runs 357, 358
5	Runs 359, 360
6	Runs 361, 362

2.9 ft Significant Wave Height
13.7% Beam

SPEED knots	10	15	20	25	30	35
C_v	0.646	0.970	1.293	1.616	1.939	2.263
Fre- quency Hz	Spectral Estimates ft ² /Hz					
0.00	0.6312E+00	0.4188E+00	0.3319E+00	0.2466E+00	0.1516E+00	0.4581E-01
0.11	0.4561E+00	0.3048E+00	0.2820E+00	0.2363E+00	0.1519E+00	0.6660E-01
0.22	0.6787E+00	0.3698E+00	0.2356E+00	0.2177E+00	0.1758E+00	0.1368E+00
0.33	0.1305E+01	0.9106E+00	0.4762E+00	0.3263E+00	0.2162E+00	0.1833E+00
0.44	0.1207E+01	0.1136E+01	0.8708E+00	0.6626E+00	0.3958E+00	0.2951E+00
0.55	0.7385E+00	0.9543E+00	0.9245E+00	0.8668E+00	0.6910E+00	0.5167E+00
0.66	0.4347E+00	0.6843E+00	0.7126E+00	0.7726E+00	0.7631E+00	0.7213E+00
0.76	0.2429E+00	0.4315E+00	0.5186E+00	0.5642E+00	0.5901E+00	0.6901E+00
0.87	0.1484E+00	0.2298E+00	0.3392E+00	0.4267E+00	0.4376E+00	0.5424E+00
0.98	0.7734E-01	0.1367E+00	0.2103E+00	0.2881E+00	0.3691E+00	0.4189E+00
1.09	0.3033E-01	0.1021E+00	0.1603E+00	0.1664E+00	0.2883E+00	0.3482E+00
1.20	0.1996E-01	0.7548E-01	0.1309E+00	0.1182E+00	0.1872E+00	0.2867E+00
1.31	0.1624E-01	0.4624E-01	0.9170E-01	0.1298E+00	0.1337E+00	0.1767E+00
1.42	0.1331E-01	0.2793E-01	0.6296E-01	0.1163E+00	0.1187E+00	0.1208E+00
1.53	0.1135E-01	0.2280E-01	0.4609E-01	0.7108E-01	0.1240E+00	0.1059E+00
1.64	0.6652E-02	0.1044E-01	0.2576E-01	0.4444E-01	0.1075E+00	0.1040E+00
1.75	0.3268E-02	0.6976E-02	0.1799E-01	0.3661E-01	0.6973E-01	0.1181E+00
1.86	0.1967E-02	0.5872E-02	0.1554E-01	0.2893E-01	0.4620E-01	0.1015E+00
1.97	0.1401E-02	0.5618E-02	0.1342E-01	0.1603E-01	0.3748E-01	0.7095E-01
2.07	0.8670E-03	0.3035E-02	0.1130E-01	0.1483E-01	0.3732E-01	0.4955E-01
2.18	0.4595E-03	0.2335E-02	0.6433E-02	0.1603E-01	0.2261E-01	0.3281E-01
2.29	0.3461E-03	0.1564E-02	0.4686E-02	0.1559E-01	0.1927E-01	0.2447E-01
2.40	0.3399E-03	0.1706E-02	0.4384E-02	0.1105E-01	0.2008E-01	0.1776E-01
2.51	0.2557E-03	0.8817E-03	0.3444E-02	0.8577E-02	0.1653E-01	0.1621E-01
2.62	0.1843E-03	0.1076E-02	0.2874E-02	0.6687E-02	0.1191E-01	0.1026E-01
2.73	0.1503E-03	0.6502E-03	0.2902E-02	0.6147E-02	0.1051E-01	0.1106E-01
2.84	0.1209E-03	0.7737E-03	0.2659E-02	0.5195E-02	0.8463E-02	0.1158E-01
2.95	0.1000E-03	0.1841E-03	0.2225E-02	0.5456E-02	0.7307E-02	0.1071E-01
3.06	0.9955E-04	0.5002E-03	0.2185E-02	0.4747E-02	0.7378E-02	0.8811E-02
3.17	0.9142E-04	0.2103E-03	0.1988E-02	0.4248E-02	0.8280E-02	0.1070E-01
3.27	0.8927E-04	0.6458E-03	0.1785E-02	0.3418E-02	0.7962E-02	0.1124E-01

TABLE 10.2
ENCOUNTERED WAVE SPECTRAL DENSITY
120 ft WPB

Column					
1	Runs 363				
2	Runs 364, 365				
3	Runs 371, 372				
4	Runs 373, 374				
5	Runs 375, 376, 377				
4.6 ft Significant Wave Height 21.7% Beam					
SPEED knots	10	15	20	25	30
C _v	0.646	0.970	1.293	1.616	1.939
Fre- quency Hz	Spectral Estimates ft ² /Hz				
0.00	0.6654E+00	0.8900E+00	0.1244E+01	0.1030E+01	0.6002E+00
0.07	0.6272E+00	0.5821E+00	0.7535E+00	0.7842E+00	0.5128E+00
0.14	0.1306E+01	0.6852E+00	0.4078E+00	0.5349E+00	0.4417E+00
0.21	0.3640E+01	0.2220E+01	0.1211E+01	0.7972E+00	0.6051E+00
0.28	0.5187E+01	0.3522E+01	0.2650E+01	0.1748E+01	0.1205E+01
0.35	0.4145E+01	0.3460E+01	0.3223E+01	0.2413E+01	0.2076E+01
0.42	0.2379E+01	0.2791E+01	0.2992E+01	0.2731E+01	0.2472E+01
0.49	0.1452E+01	0.2058E+01	0.2134E+01	0.2596E+01	0.2257E+01
0.56	0.8119E+00	0.1374E+01	0.1480E+01	0.1944E+01	0.2050E+01
0.63	0.4231E+00	0.9197E+00	0.1141E+01	0.1549E+01	0.1672E+01
0.70	0.3754E+00	0.6249E+00	0.8473E+00	0.1192E+01	0.1360E+01
0.77	0.2568E+00	0.3838E+00	0.5955E+00	0.8524E+00	0.1058E+01
0.84	0.1290E+00	0.2700E+00	0.4078E+00	0.6117E+00	0.8697E+00
0.91	0.1052E+00	0.2240E+00	0.3001E+00	0.4453E+00	0.7209E+00
0.98	0.8666E-01	0.2031E+00	0.1979E+00	0.3814E+00	0.4525E+00
1.05	0.5022E-01	0.1165E+00	0.1776E+00	0.2982E+00	0.2770E+00
1.12	0.3179E-01	0.8207E-01	0.2063E+00	0.2363E+00	0.2995E+00
1.19	0.2177E-01	0.5925E-01	0.1564E+00	0.1616E+00	0.2647E+00
1.26	0.1532E-01	0.5384E-01	0.9350E-01	0.1453E+00	0.1781E+00
1.33	0.9984E-02	0.3764E-01	0.7528E-01	0.1648E+00	0.1566E+00
1.40	0.7145E-02	0.2713E-01	0.5936E-01	0.1013E+00	0.1469E+00
1.47	0.4582E-02	0.2143E-01	0.4793E-01	0.7185E-01	0.1522E+00
1.54	0.3713E-02	0.2226E-01	0.3251E-01	0.6299E-01	0.1414E+00
1.61	0.2296E-02	0.1385E-01	0.2809E-01	0.5624E-01	0.1211E+00
1.68	0.2303E-02	0.1120E-01	0.2766E-01	0.4777E-01	0.9851E-01
1.75	0.1790E-02	0.8679E-02	0.2835E-01	0.4365E-01	0.9255E-01
1.82	0.1798E-02	0.9999E-02	0.1909E-01	0.3358E-01	0.1055E+00
1.90	0.1314E-02	0.6582E-02	0.1473E-01	0.2036E-01	0.7904E-01
1.97	0.1378E-02	0.7682E-02	0.8488E-02	0.2395E-01	0.5702E-01
2.04	0.8680E-03	0.5860E-02	0.1239E-01	0.3521E-01	0.4217E-01
2.11	0.1074E-02	0.8047E-02	0.1135E-01	0.3374E-01	0.3705E-01

TABLE 10.3
ENCOUNTERED WAVE SPECTRAL DENSITY
120 ft WPB

Column

1 Runs 378, 379
2 Runs 380, 381, 382
3 Runs 383, 384, 385
4 Runs 386, 387, 388, 389
5 Runs 390, 391, 392, 393

10.7 ft Significant Wave Height
50.5% Beam

SPEED knots	10	15	20	25	30
C_v	0.646	0.970	1.293	1.616	1.939
Fre- quency Hz	Spectral Estimates ft ² /Hz				
0.00	0.4703E+00	0.8317E+00	0.1364E+01	0.6881E+00	0.3054E+00
0.04	0.1022E+01	0.7743E+00	0.9658E+00	0.4081E+00	0.2720E+00
0.08	0.5853E+01	0.1646E+01	0.8030E+00	0.2622E+00	0.6087E-01
0.12	0.2604E+02	0.1255E+02	0.6636E+01	0.2220E+01	0.7283E+00
0.16	0.4395E+02	0.3065E+02	0.2253E+02	0.1289E+02	0.7418E+01
0.20	0.3570E+02	0.3566E+02	0.3173E+02	0.2640E+02	0.2071E+02
0.24	0.1978E+02	0.2719E+02	0.2770E+02	0.3016E+02	0.2705E+02
0.28	0.1123E+02	0.1692E+02	0.1911E+02	0.2548E+02	0.2652E+02
0.32	0.8014E+01	0.1067E+02	0.1380E+02	0.1572E+02	0.2079E+02
0.35	0.5192E+01	0.7849E+01	0.8277E+01	0.1049E+02	0.1336E+02
0.39	0.3152E+01	0.5933E+01	0.5655E+01	0.7229E+01	0.1020E+02
0.43	0.1999E+01	0.3561E+01	0.5584E+01	0.4981E+01	0.7386E+01
0.47	0.1426E+01	0.2185E+01	0.3861E+01	0.5357E+01	0.4087E+01
0.51	0.1060E+01	0.1761E+01	0.2860E+01	0.4204E+01	0.4098E+01
0.55	0.7256E+00	0.1423E+01	0.2509E+01	0.2530E+01	0.4279E+01
0.59	0.4586E+00	0.9462E+00	0.1954E+01	0.1858E+01	0.2997E+01
0.63	0.2927E+00	0.8339E+00	0.1688E+01	0.1696E+01	0.2125E+01
0.67	0.2349E+00	0.6623E+00	0.1491E+01	0.1602E+01	0.1901E+01
0.71	0.1790E+00	0.4735E+00	0.1278E+01	0.1293E+01	0.1752E+01
0.75	0.1272E+00	0.3128E+00	0.8160E+00	0.9351E+00	0.1497E+01
0.79	0.8922E-01	0.2351E+00	0.5191E+00	0.6644E+00	0.1091E+01
0.83	0.5778E-01	0.1751E+00	0.5386E+00	0.6486E+00	0.7411E+00
0.87	0.5080E-01	0.1432E+00	0.3956E+00	0.6733E+00	0.5342E+00
0.90	0.4486E-01	0.1033E+00	0.2194E+00	0.5447E+00	0.4284E+00
0.94	0.3705E-01	0.1174E+00	0.2193E+00	0.5025E+00	0.4668E+00
0.98	0.2366E-01	0.8327E-01	0.2697E+00	0.4532E+00	0.5248E+00
1.02	0.2356E-01	0.5268E-01	0.2433E+00	0.2672E+00	0.5569E+00
1.06	0.1616E-01	0.3775E-01	0.1514E+00	0.1707E+00	0.4759E+00
1.10	0.1903E-01	0.5959E-01	0.9943E-01	0.1754E+00	0.3882E+00
1.14	0.1960E-01	0.4557E-01	0.1245E+00	0.1818E+00	0.3631E+00
1.18	0.2043E-01	0.5103E-01	0.1640E+00	0.1603E+00	0.3173E+00

TABLE 11.1
ROUGH WATER RMS AND MEAN VALUES
OF MOTIONS AND ACCELERATIONS
39.60 ft LCG

RUN GROUP	SPEED	PITCH deg	ROOT MEAN SQUARE VALUES						MEAN VALUES	
	knots		HEAVE ft	ACCELERATION, g				HEAVE ft	PITCH deg	
				#1	#2	#3	#4	#5		
Significant Wave Height 2.9 ft										
305	10	1.083	0.269	0.046	0.038	0.078	0.128	0.154	1.30	1.26
306	15	0.878	0.319	0.049	0.054	0.093	0.142	0.168	1.03	2.29
307	20	0.664	0.333	0.059	0.063	0.096	0.141	0.164	1.22	3.40
309	25	0.561	0.291	0.060	0.064	0.094	0.138	0.162	1.61	3.65
311	30	0.474	0.237	0.060	0.073	0.114	0.169	0.199	2.31	3.67
313	35	0.441	0.240	0.066	0.090	0.145	0.211	0.249	2.63	3.90
Significant Wave Height 4.6 ft										
315	10	2.069	0.674	0.083	0.064	0.125	0.201	0.242	1.33	1.47
317	15	1.990	0.837	0.103	0.115	0.189	0.279	0.332	1.08	2.45
320	20	1.562	0.873	0.124	0.139	0.205	0.291	0.340	1.34	3.71
322	25	1.372	0.864	0.145	0.159	0.225	0.316	0.371	1.60	3.77
329	30	1.323	0.843	0.157	0.180	0.259	0.362	0.423	2.38	3.89
Significant Wave Height 10.7 ft										
332	10	4.052	2.334	0.154	0.129	0.210	0.321	0.384	1.36	1.75
334	15	3.959	2.582	0.188	0.210	0.303	0.429	0.504	1.22	3.02
337	20	3.692	2.947	0.249	0.307	0.405	0.547	0.632	1.60	4.08
340	25	3.321	2.913	0.283	0.347	0.447	0.595	0.685	1.99	4.40
345	30	3.182	3.267	0.352	0.471	0.540	0.700	0.798	2.83	4.46

TABLE 11.2
ROUGH WATER RMS AND MEAN VALUES
OF MOTIONS AND ACCELERATIONS
42.90 ft LCG

RUN GROUP	SPEED	PITCH deg	ROOT MEAN SQUARE VALUES						MEAN VALUES	
	knots		HEAVE ft	#1	#2	#3	#4	#5	HEAVE ft	PITCH deg
Significant Wave Height 2.9 ft										
233	10	1.083	0.275	0.049	0.044	0.075	0.124	0.150	1.30	0.08
234	15	0.842	0.303	0.051	0.054	0.087	0.132	0.159	1.00	0.87
235	20	0.642	0.311	0.062	0.007	0.088	0.128	0.150	1.07	1.95
237	25	0.537	0.285	0.065	0.045	0.083	0.123	0.144	1.41	2.31
242	30	0.468	0.235	0.064	0.061	0.091	0.135	0.159	2.02	2.22
244	35	0.422	0.238	0.065	0.072	0.110	0.162	0.191	2.25	2.44
Significant Wave Height 4.6 ft										
246	10	1.889	0.668	0.080	0.062	0.114	0.183	0.221	1.31	0.23
247	15	1.813	0.773	0.099	0.099	0.161	0.239	0.282	1.04	1.07
263	20	1.564	0.871	0.130	0.115	0.189	0.267	0.312	1.10	2.25
265	25	1.389	0.904	0.157	0.114	0.211	0.292	0.341	1.43	2.55
271	30	1.164	0.758	0.157	0.128	0.207	0.290	0.337	2.10	2.61
Significant Wave Height 10.7 ft										
274	10	3.662	2.309	0.149	0.102	0.184	0.279	0.333	1.35	0.68
276	15	3.724	2.531	0.191	0.163	0.273	0.386	0.453	1.05	1.72
290	20	3.438	2.686	0.240	0.259	0.343	0.505	0.536	1.32	2.85
293	25	3.271	3.007	0.300	0.334	0.419	0.552	0.632	1.83	3.21
297	30	3.088	3.158	0.360	0.402	0.485	0.626	0.713	2.50	3.35

TABLE 11.3
ROUGH WATER RMS AND MEAN VALUES
OF MOTIONS AND ACCELERATIONS
46.20 ft LCG

RUN GROUP	SPEED knots	PITCH deg	ROOT MEAN SQUARE VALUES						MEAN VALUES	
			HEAVE ft	ACCELERATION, g					HEAVE ft	PITCH deg
				#1	#2	#3	#4	#5		
Significant Wave Height 2.9 ft										
352	10	1.016	0.262	0.049	0.034	0.070	0.117	0.142	1.27	-0.39
353	15	0.807	0.306	0.056	0.050	0.084	0.128	0.153	0.94	0.35
354	20	0.591	0.319	0.067	0.060	0.083	0.120	0.141	0.91	1.54
357	25	0.454	0.291	0.070	0.061	0.075	0.108	0.128	1.17	1.82
359	30	0.373	0.197	0.065	0.053	0.072	0.109	0.129	1.77	1.80
361	35	0.327	0.171	0.062	0.055	0.083	0.127	0.150	1.91	1.81
Significant Wave Height 4.6 ft										
363	10	1.803	0.618	0.083	0.056	0.109	0.178	0.215	1.29	-0.28
364	15	1.679	0.724	0.104	0.093	0.149	0.222	0.264	0.95	0.55
371	20	1.406	0.804	0.133	0.124	0.172	0.240	0.282	0.96	1.74
373	25	1.234	0.829	0.158	0.141	0.182	0.249	0.292	1.23	2.10
375	30	1.098	0.739	0.164	0.140	0.180	0.249	0.292	1.83	2.00
Significant Wave Height 10.7 ft										
378	10	3.733	2.269	0.155	0.116	0.181	0.276	0.333	1.31	0.05
380	15	3.572	2.445	0.192	0.178	0.253	0.356	0.421	1.00	0.89
383	20	3.250	2.540	0.236	0.235	0.313	0.421	0.490	1.05	1.95
386	25	3.080	2.841	0.309	0.306	0.385	0.502	0.580	1.39	2.35
390	30	2.878	2.911	0.362	0.359	0.432	0.554	0.636	2.07	2.14

TABLE 12.1
ROUGH WATER AVERAGE CRESTS AND TROUGHS
OF MOTIONS AND ACCELERATIONS
39.60 ft LCG

RUN GROUP	SPEED knots	PITCH deg	HEAVE ft	ACCELERATION, g				
				#1	#2	#3	#4	#5
Significant Wave Height 2.9 ft								
Crests								
305	10	2.77	1.67	0.08	0.09	0.10	0.22	0.22
306	15	3.60	1.45	0.08	0.10	0.12	0.22	0.23
307	20	4.40	1.63	0.08	0.11	0.13	0.21	0.25
309	25	4.52	1.96	0.09	0.11	0.14	0.23	0.28
311	30	4.49	2.63	0.10	0.12	0.18	0.29	0.32
313	35	4.72	2.92	0.09	0.14	0.21	0.32	0.37

Troughs								
305	10	-0.05	0.95	-0.09	-0.12	-0.13	-0.25	-0.24
306	15	1.42	0.64	-0.10	-0.13	-0.16	-0.31	-0.28
307	20	2.85	0.81	-0.11	-0.15	-0.15	-0.27	-0.25
309	25	3.25	1.29	-0.09	-0.14	-0.13	-0.26	-0.25
311	30	3.36	2.03	-0.11	-0.15	-0.16	-0.26	-0.26
313	35	3.67	2.35	-0.11	-0.16	-0.18	-0.29	-0.31

Significant Wave Height 4.6 ft

Crests								
315	10	4.08	2.13	0.13	0.11	0.16	0.26	0.30
317	15	5.02	2.07	0.15	0.16	0.23	0.35	0.41
320	20	5.92	2.46	0.17	0.19	0.25	0.37	0.45
322	25	5.65	2.66	0.19	0.23	0.28	0.44	0.55
329	30	5.57	3.38	0.19	0.25	0.35	0.55	0.59

Troughs								
315	10	-0.84	0.54	-0.13	-0.14	-0.17	-0.34	-0.32
319	15	0.37	0.13	-0.17	-0.17	-0.25	-0.41	-0.49
320	20	1.98	0.33	-0.19	-0.21	-0.29	-0.41	-0.47
322	25	2.25	0.62	-0.22	-0.18	-0.30	-0.44	-0.46
329	30	2.53	1.49	-0.22	-0.16	-0.30	-0.42	-0.46

TABLE 12.2
 ROUGH WATER AVERAGE CRESTS AND TROUGHS
 OF MOTIONS AND ACCELERATIONS
 39.60 ft LCG

RUN GROUP	SPEED knots	PITCH deg	HEAVE ft	ACCELERATION, g				
				#1	#2	#3	#4	#5
Significant Wave Height 10.7 ft								
Crests								
332	10	6.48	4.07	0.20	0.19	0.26	0.42	0.51
334	15	7.47	4.30	0.20	0.36	0.40	0.60	0.73
337	20	8.04	4.92	0.32	0.49	0.61	0.91	1.05
340	25	8.36	5.45	0.34	0.52	0.71	1.06	1.16
345	30	7.98	6.32	0.39	0.72	0.86	1.20	1.25
Troughs								
332	10	-2.58	-1.11	-0.22	-0.16	-0.24	-0.39	-0.38
334	15	-1.17	-1.62	-0.27	-0.16	-0.24	-0.48	-0.37
337	20	0.35	-1.46	-0.28	-0.13	-0.28	-0.48	-0.44
340	25	0.58	-1.22	-0.31	-0.10	-0.31	-0.42	-0.39
345	30	0.97	-0.46	-0.27	-0.08	-0.34	-0.53	-0.43

TABLE 12.3
ROUGH WATER AVERAGE CRESTS AND TROUGHS
OF MOTIONS AND ACCELERATIONS
42.90 ft LCG

RUN GROUP	SPEED knots	PITCH deg	HEAVE ft	ACCELERATION, g				
				#1	#2	#3	#4	#5
Significant Wave Height 2.9 ft								
Crests								
233	10	1.53	1.70	0.09	0.09	0.11	0.21	0.22
234	15	2.05	1.38	0.09	0.11	0.12	0.22	0.22
235	20	2.97	1.47	0.10	-	0.13	0.22	0.24
237	25	3.15	1.74	0.10	0.10	0.12	0.21	0.25
242	30	3.03	2.33	0.11	0.11	0.14	0.25	0.27
244	35	3.22	2.55	0.12	0.13	0.17	0.28	0.30
Troughs								
233	10	-1.17	0.94	-0.08	-0.11	-0.13	-0.25	-0.25
234	15	0.04	0.61	-0.09	-0.11	-0.15	-0.25	-0.31
235	20	1.40	0.67	-0.11	-	-0.16	-0.24	-0.26
237	25	1.89	1.09	-0.10	-0.12	-0.13	-0.22	-0.23
242	30	1.92	1.74	-0.10	-0.13	-0.13	-0.22	-0.24
244	35	2.22	1.97	-0.10	-0.14	-0.15	-0.26	-0.28
Significant Wave Height 4.6 ft								
Crests								
246	10	2.61	2.10	0.14	0.11	0.15	0.26	0.27
247	15	3.44	1.97	0.15	0.15	0.19	0.30	0.34
263	20	4.30	2.19	0.17	0.16	0.22	0.35	0.38
265	25	4.50	2.53	0.19	0.17	0.26	0.40	0.48
271	30	4.15	2.99	0.18	0.18	0.27	0.43	0.44
Troughs								
246	10	-1.92	0.54	-0.11	-0.12	-0.18	-0.31	-0.33
247	15	-0.82	0.16	-0.13	-0.17	-0.25	-0.38	-0.44
263	20	0.74	0.07	-0.20	-0.20	-0.28	-0.37	-0.44
265	25	1.01	0.40	-0.24	-0.18	-0.29	-0.39	-0.45
271	30	1.50	1.30	-0.24	-0.19	-0.27	-0.39	-0.39

TABLE 12.4
 ROUGH WATER AVERAGE CRESTS AND TROUGHS
 OF MOTIONS AND ACCELERATIONS
 42.90 ft LCG

RUN GROUP	SPEED knots	PITCH deg	HEAVE ft	#1	ACCELERATION, g				
					#2	#3	#4	#5	

Significant Wave Height 10.7 ft

Crests

274	10	4.69	3.81	0.19	0.18	0.24	0.36	0.43
276	15	5.81	4.09	0.21	0.27	0.33	0.50	0.52
290	20	6.70	4.22	0.25	0.37	0.40	0.60	0.62
293	25	6.90	5.16	0.33	0.46	0.57	0.85	0.81
297	30	6.75	6.04	0.40	0.58	0.70	0.95	1.17

Troughs

274	10	-3.32	-0.88	-0.23	-0.15	-0.21	-0.36	-0.38
276	15	-2.13	-1.64	-0.28	-0.19	-0.28	-0.43	-0.47
290	20	-0.63	-1.32	-0.32	-0.14	-0.27	-0.48	-0.47
293	25	-0.31	-1.21	-0.31	-0.12	-0.30	-0.52	-0.49
297	30	-0.07	-0.84	-0.36	-0.04	-0.34	-0.54	-0.45

TABLE 12.5
ROUGH WATER AVERAGE CRESTS AND TROUGHS
OF MOTIONS AND ACCELERATIONS
46.20 ft LCG

RUN GROUP	SPEED knots	PITCH deg	HEAVE ft	ACCELERATION, g				
				#1	#2	#3	#4	#5
Significant Wave Height 2.9 ft								
Crests								
352	10	1.01	1.62	0.09	0.09	0.10	0.19	0.20
353	15	1.58	1.37	0.09	0.10	0.12	0.19	0.23
354	20	2.46	1.31	0.09	0.11	0.12	0.20	0.22
357	25	2.60	1.51	0.09	0.11	0.12	0.18	0.20
359	30	2.56	2.03	0.10	0.10	0.12	0.20	0.20
361	35	2.57	2.15	0.09	0.10	0.14	0.22	0.24
Troughs								
352	10	-1.62	0.92	-0.09	-0.11	-0.12	-0.25	-0.25
353	15	-0.55	0.52	-0.10	-0.12	-0.14	-0.27	-0.28
354	20	0.96	0.51	-0.12	-0.13	-0.13	-0.24	-0.25
357	25	1.47	0.85	-0.12	-0.14	-0.11	-0.23	-0.24
359	30	1.57	1.52	-0.11	-0.13	-0.11	-0.23	-0.23
361	35	1.68	1.69	-0.12	-0.13	-0.11	-0.22	-0.23
Significant Wave Height 4.6 ft								
Crests								
363	10	2.08	2.06	0.12	0.10	0.14	0.22	0.26
364	15	2.78	1.87	0.14	0.13	0.19	0.28	0.32
371	20	3.63	1.97	0.18	0.17	0.21	0.31	0.37
373	25	3.79	2.25	0.21	0.19	0.21	0.35	0.41
375	30	3.51	2.75	0.22	0.21	0.22	0.34	0.39
Troughs								
363	10	-2.36	0.59	-0.13	-0.13	-0.17	-0.32	-0.32
364	15	-1.34	0.11	-0.17	-0.18	-0.23	-0.39	-0.40
371	20	0.26	-0.04	-0.20	-0.21	-0.28	-0.39	-0.43
373	25	0.73	0.25	-0.22	-0.22	-0.27	-0.38	-0.40
375	30	0.89	0.96	-0.22	-0.19	-0.24	-0.34	-0.36

TABLE 12.6
ROUGH WATER AVERAGE CRESTS AND TROUGHS
OF MOTIONS AND ACCELERATIONS
46.20 ft LCG

RUN GROUP	SPEED knots	PITCH deg	HEAVE ft	#1	#2	#3	#4	#5
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Significant Wave Height 10.7 ft

Crests

378	10	4.42	4.04	0.22	0.17	0.21	0.35	0.39
380	15	5.03	3.90	0.24	0.24	0.29	0.44	0.51
383	20	5.97	3.93	0.29	0.33	0.41	0.61	0.70
386	25	5.71	4.73	0.38	0.39	0.51	0.70	0.83
390	30	5.39	5.39	0.43	0.53	0.61	0.88	1.00

Troughs

378	10	-4.05	-1.27	-0.22	-0.18	-0.23	-0.35	-0.42
380	15	-2.83	-1.55	-0.25	-0.19	-0.28	-0.48	-0.46
383	20	-1.70	-1.92	-0.31	-0.14	-0.27	-0.53	-0.58
386	25	-1.04	-1.60	-0.36	-0.09	-0.25	-0.53	-0.57
390	30	-1.05	-1.00	-0.40	-0.07	-0.22	-0.50	-0.53

TABLE 13.1
ROUGH WATER AVERAGE 1/3 LARGEST CRESTS AND TROUGHS
OF MOTIONS AND ACCELERATIONS
39.60 ft LCG

RUN GROUP	SPEED knots	PITCH deg	HEAVE ft	ACCELERATION, g				
				#1	#2	#3	#4	#5
Significant Wave Height 2.9 ft								
Crests								
305	10	3.76	1.91	0.11	0.12	0.15	0.31	0.34
306	15	4.30	1.70	0.11	0.13	0.18	0.30	0.35
307	20	5.00	1.93	0.13	0.15	0.19	0.33	0.38
309	25	4.99	2.25	0.13	0.15	0.22	0.37	0.42
311	30	4.92	2.88	0.13	0.17	0.29	0.45	0.53
313	35	5.08	3.16	0.14	0.21	0.35	0.54	0.64
Troughs								
305	10	-0.72	0.76	-0.13	-0.16	-0.21	-0.39	-0.40
306	15	0.83	0.38	-0.14	-0.18	-0.25	-0.44	-0.45
307	20	2.35	0.52	-0.16	-0.21	-0.26	-0.42	-0.44
309	25	2.73	1.06	-0.14	-0.20	-0.22	-0.37	-0.38
311	30	2.98	1.86	-0.17	-0.22	-0.26	-0.43	-0.43
313	35	3.33	2.17	-0.17	-0.22	-0.29	-0.42	-0.46
Significant Wave Height 4.6 ft								
Crests								
315	10	5.77	2.81	0.17	0.15	0.24	0.43	0.48
317	15	6.87	2.85	0.22	0.24	0.36	0.55	0.67
320	20	7.26	3.25	0.25	0.28	0.43	0.68	0.82
322	25	6.76	3.50	0.27	0.36	0.50	0.82	1.01
329	30	6.79	4.29	0.30	0.42	0.62	0.99	1.16
Troughs								
315	10	-2.09	0.00	-0.20	-0.20	-0.28	-0.51	-0.52
319	15	-1.05	-0.51	-0.26	-0.30	-0.44	-0.66	-0.75
320	20	0.93	-0.31	-0.32	-0.39	-0.50	-0.69	-0.80
322	25	1.25	0.05	-0.35	-0.40	-0.52	-0.73	-0.79
329	30	1.69	0.91	-0.38	-0.40	-0.54	-0.71	-0.82

TABLE 13.2
 ROUGH WATER AVERAGE 1/3 LARGEST CRESTS AND TROUGHS
 OF MOTIONS AND ACCELERATIONS
 39.60 ft LCG

RUN GROUP	SPEED knots	PITCH deg	HEAVE ft	ACCELERATION, g				
				#1	#2	#3	#4	#5
Significant Wave Height 10.7 ft								
Crests								
332	10	10.31	6.32	0.32	0.28	0.46	0.76	0.93
334	15	11.44	6.76	0.41	0.68	0.79	1.24	1.49
337	20	11.97	8.17	0.57	0.98	1.27	2.01	2.29
340	25	11.44	8.37	0.61	1.00	1.46	2.28	2.55
345	30	11.13	9.84	0.85	1.37	1.88	2.77	2.88
Troughs								
332	10	-5.68	-2.78	-0.42	-0.31	-0.46	-0.64	-0.72
334	15	-3.99	-3.55	-0.53	-0.43	-0.60	-0.85	-0.89
337	20	-2.18	-3.42	-0.58	-0.49	-0.73	-0.95	-1.04
340	25	-1.82	-3.11	-0.61	-0.49	-0.79	-0.99	-1.05
345	30	-1.41	-2.42	-0.67	-0.59	-0.84	-1.07	-1.11

TABLE 13.3
ROUGH WATER AVERAGE 1/3 LARGEST CRESTS AND TROUGHS
OF MOTIONS AND ACCELERATIONS
42.90 ft LCG

RUN GROUP	SPEED knots	PITCH deg	HEAVE ft	#1	ACCELERATION, g				
					#2	#3	#4	#5	

Significant Wave Height 2.9 ft

Crests

233	10	2.45	1.91	0.12	0.11	0.15	0.32	0.33
234	15	2.75	1.63	0.12	0.15	0.17	0.31	0.33
235	20	3.48	1.75	0.15	-	0.18	0.33	0.34
237	25	3.60	2.02	0.14	0.15	0.19	0.31	0.37
242	30	3.46	2.55	0.15	0.14	0.22	0.37	0.43
244	35	3.61	2.78	0.16	0.18	0.27	0.44	0.49

Troughs

233	10	-1.95	0.74	-0.11	-0.14	-0.20	-0.36	-0.39
234	15	-0.53	0.38	-0.12	-0.15	-0.22	-0.36	-0.46
235	20	0.87	0.41	-0.15	-	-0.24	-0.39	-0.43
237	25	1.43	0.85	-0.15	-0.17	-0.21	-0.35	-0.36
242	30	1.53	1.54	-0.16	-0.19	-0.21	-0.31	-0.38
244	35	1.90	1.76	-0.16	-0.21	-0.25	-0.40	-0.43

Significant Wave Height 4.6 ft

Crests

246	10	4.36	2.77	0.20	0.15	0.22	0.39	0.44
247	15	5.13	2.66	0.22	0.21	0.28	0.45	0.54
263	20	5.85	3.04	0.26	0.23	0.35	0.59	0.67
265	25	5.63	3.33	0.29	0.22	0.43	0.69	0.86
271	30	5.17	3.74	0.28	0.27	0.44	0.73	0.82

Troughs

246	10	-3.29	0.01	-0.17	-0.18	-0.28	-0.45	-0.51
247	15	-1.98	-0.48	-0.21	-0.27	-0.40	-0.59	-0.72
263	20	-0.33	-0.58	-0.32	-0.34	-0.50	-0.68	-0.81
265	25	-0.13	-0.28	-0.38	-0.30	-0.51	-0.67	-0.77
271	30	0.54	0.66	-0.39	-0.34	-0.50	-0.65	-0.73

TABLE 13.4
 ROUGH WATER AVERAGE 1/3 LARGEST CRESTS AND TROUGHS
 OF MOTIONS AND ACCELERATIONS
 42.90 ft LCG

RUN GROUP	SPEED knots	PITCH deg	HEAVE ft	ACCELERATION, g				
				#1	#2	#3	#4	#5
Significant Wave Height 10.7 ft								
Crests								
274	10	7.90	6.04	0.30	0.29	0.42	0.62	0.75
276	15	9.38	6.60	0.39	0.49	0.64	0.96	1.10
290	20	10.15	7.08	0.48	0.70	0.78	1.25	1.43
293	25	10.32	8.38	0.64	0.91	1.22	1.86	1.94
297	30	10.00	9.59	0.91	1.03	1.53	2.29	2.61
Troughs								
274	10	-6.05	-3.06	-0.38	-0.28	-0.40	-0.60	-0.66
276	15	-5.19	-3.61	-0.53	-0.41	-0.60	-0.79	-0.90
290	20	-3.34	-3.53	-0.59	-0.49	-0.67	-0.91	-1.01
293	25	-2.61	-3.31	-0.69	-0.55	-0.79	-0.99	-1.06
297	30	-2.18	-2.86	-0.75	-0.50	-0.84	-1.20	-1.12

TABLE 13.5
ROUGH WATER AVERAGE 1/3 LARGEST CRESTS AND TROUGHS
OF MOTIONS AND ACCELERATIONS
46.20 ft LCG

RUN GROUP	SPEED knots	PITCH deg	HEAVE ft	ACCELERATION, g				
				#1	#2	#3	#4	#5
Significant Wave Height 2.9 ft								
Crests								
352	10	1.81	1.83	0.12	0.11	0.15	0.29	0.30
353	15	2.17	1.53	0.12	0.13	0.17	0.27	0.34
354	20	2.92	1.57	0.14	0.15	0.18	0.28	0.33
357	25	2.92	1.78	0.13	0.14	0.17	0.27	0.31
359	30	2.88	2.19	0.14	0.14	0.18	0.28	0.31
361	35	2.86	2.29	0.13	0.13	0.21	0.34	0.37
Troughs								
352	10	-2.31	0.74	-0.13	-0.13	-0.18	-0.36	-0.37
353	15	-1.01	0.29	-0.14	-0.15	-0.21	-0.37	-0.42
354	20	0.54	0.29	-0.17	-0.17	-0.21	-0.36	-0.36
357	25	1.07	0.65	-0.18	-0.18	-0.17	-0.32	-0.35
359	30	1.32	1.36	-0.17	-0.16	-0.17	-0.32	-0.35
361	35	1.42	1.54	-0.17	-0.17	-0.19	-0.32	-0.36
Significant Wave Height 4.6 ft								
Crests								
363	10	3.51	2.59	0.18	0.14	0.22	0.34	0.45
364	15	4.28	2.47	0.21	0.19	0.28	0.43	0.50
371	20	4.82	2.77	0.26	0.26	0.32	0.49	0.59
373	25	4.77	3.05	0.31	0.28	0.33	0.56	0.65
375	30	4.38	3.49	0.33	0.34	0.34	0.55	0.64
Troughs								
363	10	-3.50	0.10	-0.20	-0.18	-0.26	-0.51	-0.53
364	15	-2.46	-0.46	-0.24	-0.25	-0.37	-0.60	-0.66
371	20	-0.74	-0.54	-0.32	-0.34	-0.47	-0.61	-0.73
373	25	-0.25	-0.34	-0.36	-0.38	-0.47	-0.63	-0.70
375	30	-0.12	0.36	-0.37	-0.37	-0.46	-0.57	-0.64

TABLE 13.6
 ROUGH WATER AVERAGE 1/3 LARGEST CRESTS AND TROUGHS
 OF MOTIONS AND ACCELERATIONS
 46.20 ft LCG

RUN GROUP	SPEED knots	PITCH deg	HEAVE ft	ACCELERATION, g				
				#1	#2	#3	#4	#5

Significant Wave Height 10.7 ft

Crests

378	10	7.99	6.19	0.33	0.25	0.36	0.58	0.70
380	15	8.42	6.26	0.39	0.40	0.52	0.78	0.93
383	20	9.02	6.51	0.49	0.53	0.79	1.22	1.45
386	25	8.74	7.55	0.67	0.73	1.02	1.50	1.83
390	30	8.09	8.40	0.88	0.98	1.26	1.83	2.17

Troughs

378	10	-6.83	-2.86	-0.40	-0.32	-0.42	-0.61	-0.71
380	15	-5.70	-3.39	-0.48	-0.41	-0.57	-0.77	-0.87
383	20	-4.25	-3.83	-0.59	-0.44	-0.65	-0.88	-0.99
386	25	-3.45	-3.69	-0.77	-0.53	-0.77	-0.99	-1.10
390	30	-3.16	-3.07	-0.88	-0.56	-0.82	-1.02	-1.09

TABLE 14.1
ROUGH WATER AVERAGE 1/10 LARGEST CRESTS AND TROUGHS
OF MOTIONS AND ACCELERATIONS
39.60 ft LCG

RUN GROUP	SPEED knots	PITCH deg	HEAVE ft	ACCELERATION, g				
				#1	#2	#3	#4	#5

Significant Wave Height 2.9 ft

Crests

305	10	4.48	2.12	0.13	0.16	0.18	0.41	0.41
306	15	4.90	1.91	0.13	0.17	0.22	0.37	0.41
307	20	5.50	2.11	0.15	0.17	0.24	0.39	0.48
309	25	5.39	2.52	0.16	0.18	0.30	0.46	0.56
311	30	5.10	3.03	0.15	0.22	0.38	0.61	0.72
313	35	5.42	3.30	0.18	0.25	0.45	0.69	0.81

Troughs

305	10	-1.20	0.59	-0.16	-0.19	-0.26	-0.51	-0.51
306	15	0.36	0.21	-0.16	-0.24	-0.34	-0.54	-0.57
307	20	2.02	0.37	-0.19	-0.26	-0.33	-0.56	-0.54
309	25	2.45	0.91	-0.17	-0.22	-0.28	-0.44	-0.49
311	30	2.71	1.74	-0.25	-0.31	-0.35	-0.55	-0.56
313	35	3.12	2.06	-0.20	-0.28	-0.36	-0.49	-0.55

Significant Wave Height 4.6 ft

Crests

315	10	7.04	3.15	0.23	0.19	0.31	0.59	0.62
319	15	7.84	3.29	0.27	0.30	0.49	0.81	1.01
320	20	8.01	3.72	0.30	0.34	0.63	0.96	1.28
322	25	7.53	4.20	0.31	0.48	0.78	1.27	1.56
329	30	7.65	5.03	0.37	0.56	0.92	1.46	1.74

Troughs

315	10	-3.25	-0.50	-0.25	-0.23	-0.33	-0.62	-0.63
317	15	-1.53	-0.97	-0.35	-0.38	-0.56	-0.80	-0.94
320	20	0.44	-0.65	-0.41	-0.50	-0.63	-0.84	-0.96
322	25	0.85	-0.25	-0.44	-0.52	-0.67	-0.88	-0.98
329	30	1.25	0.47	-0.52	-0.58	-0.73	-0.91	-1.04

TABLE 14.2
 ROUGH WATER AVERAGE 1/10 LARGEST CRESTS AND TROUGHS
 OF MOTIONS AND ACCELERATIONS
 39.60 ft LCG

RUN GROUP	SPEED knots	PITCH deg	HEAVE ft	ACCELERATION, g				
				#1	#2	#3	#4	#5
Significant Wave Height 10.7 ft								
Crests								
332	10	12.67	8.59	0.40	0.39	0.69	1.21	1.48
334	15	14.20	8.81	0.59	1.14	1.41	2.32	2.67
337	20	14.54	10.96	1.02	1.65	2.54	3.83	4.45
340	25	13.73	10.94	0.89	1.69	2.58	3.97	4.54
345	30	13.78	13.48	1.54	2.51	3.39	4.77	5.27
Troughs								
332	10	-7.78	-3.82	-0.63	-0.47	-0.61	-0.81	-0.91
334	15	-5.83	-5.18	-0.73	-0.62	-0.77	-1.05	-1.10
337	20	-3.87	-4.72	-0.85	-0.72	-0.90	-1.11	-1.23
340	25	-3.13	-4.26	-0.79	-0.77	-0.93	-1.15	-1.23
345	30	-2.36	-3.46	-0.90	-1.05	-0.97	-1.23	-1.34

TABLE 14.3
ROUGH WATER AVERAGE 1/10 LARGEST CRESTS AND TROUGHS
OF MOTIONS AND ACCELERATIONS
42.90 ft LCG

RUN GROUP	SPEED knots	PITCH deg	HEAVE ft	ACCELERATION, g				
				#1	#2	#3	#4	#5

Significant Wave Height 2.9 ft

Crests

233	10	3.34	2.06	0.15	0.12	0.19	0.43	0.39
234	15	3.33	1.83	0.15	0.18	0.21	0.37	0.41
235	20	3.87	2.02	0.17	-	0.22	0.41	0.44
237	25	3.86	2.28	0.20	0.21	0.24	0.36	0.47
242	30	3.78	2.73	0.18	0.17	0.31	0.53	0.58
244	35	3.85	2.93	0.20	0.21	0.35	0.57	0.65

Troughs

233	10	-2.29	0.63	-0.13	-0.17	-0.25	-0.45	-0.49
234	15	-0.74	0.25	-0.15	-0.18	-0.30	-0.44	-0.56
235	20	0.45	0.20	-0.20	-	-0.30	-0.46	-0.57
237	25	1.11	0.68	-0.19	-0.24	-0.29	-0.45	-0.47
242	30	1.18	1.38	-0.21	-0.24	-0.29	-0.41	-0.48
244	35	1.75	1.61	-0.22	-0.28	-0.36	-0.54	-0.56

Significant Wave Height 4.6 ft

Crests

246	10	5.92	3.41	0.24	0.18	0.27	0.48	0.53
247	15	6.53	3.25	0.27	0.26	0.35	0.55	0.70
263	20	6.75	3.43	0.31	0.27	0.46	0.79	0.96
265	25	6.08	3.94	0.34	0.25	0.58	1.00	1.23
271	30	5.79	4.11	0.35	0.35	0.61	1.02	1.19

Troughs

246	10	-4.24	-0.42	-0.25	-0.25	-0.35	-0.52	-0.63
247	15	-2.44	-0.83	-0.28	-0.35	-0.49	-0.73	-0.89
263	20	-1.04	-0.93	-0.41	-0.41	-0.61	-0.82	-0.95
265	25	-0.63	-0.72	-0.50	-0.39	-0.64	-0.82	-0.94
271	30	-0.10	0.09	-0.52	-0.46	-0.68	-0.85	-0.98

TABLE 14.4
 ROUGH WATER AVERAGE 1/10 LARGEST CRESTS AND TROUGHS
 OF MOTIONS AND ACCELERATIONS
 42.90 ft LCG

RUN GROUP	SPEED knots	PITCH deg	HEAVE ft	ACCELERATION, g				
				#1	#2	#3	#4	#5
Significant Wave Height 10.7 ft								
Crests								
274	10	10.46	8.00	0.43	0.41	0.66	0.95	1.16
276	15	12.50	8.22	0.58	0.82	1.11	1.76	2.04
290	20	12.84	9.47	0.66	1.00	1.32	2.03	2.44
293	25	13.13	11.29	0.96	1.54	2.15	3.44	3.72
297	30	12.76	12.56	1.70	1.74	2.94	4.14	4.79
Troughs								
274	10	-8.88	-4.83	-0.60	-0.40	-0.57	-0.77	-0.87
276	15	-7.08	-4.88	-0.77	-0.57	-0.79	-1.00	-1.11
290	20	-4.89	-4.99	-0.80	-0.75	-0.89	-1.10	-1.23
293	25	-3.66	-4.40	-0.97	-0.81	-0.95	-1.15	-1.27
297	30	-3.19	-3.88	-0.96	-0.85	-0.98	-1.60	-1.35

TABLE 14.5
ROUGH WATER AVERAGE 1/10 LARGEST CRESTS AND TROUGHS
OF MOTIONS AND ACCELERATIONS
46.20 ft LCG

RUN GROUP	SPEED knots	PITCH deg	HEAVE ft	ACCELERATION, g				
				#1	#2	#3	#4	#5
Significant Wave Height 2.9 ft								
Crests								
352	10	2.38	2.01	0.14	0.13	0.17	0.36	0.36
353	15	2.49	1.61	0.14	0.15	0.19	0.31	0.42
354	20	3.24	1.71	0.17	0.17	0.21	0.35	0.42
357	25	3.29	2.02	0.17	0.16	0.21	0.36	0.43
359	30	3.12	2.30	0.18	0.17	0.22	0.34	0.39
361	35	3.16	2.38	0.18	0.15	0.24	0.44	0.48
Troughs								
352	10	-2.67	0.65	-0.15	-0.13	-0.21	-0.43	-0.46
353	15	-1.26	0.15	-0.16	-0.18	-0.28	-0.45	-0.52
354	20	0.21	0.06	-0.20	-0.21	-0.26	-0.43	-0.47
357	25	0.85	0.56	-0.24	-0.23	-0.24	-0.39	-0.45
359	30	1.07	1.24	-0.22	-0.20	-0.22	-0.38	-0.44
361	35	1.27	1.42	-0.22	-0.22	-0.26	-0.39	-0.48
Significant Wave Height 4.6 ft								
Crests								
363	10	4.77	3.09	0.22	0.16	0.27	0.43	0.59
364	15	5.25	2.93	0.26	0.24	0.34	0.57	0.65
371	20	5.47	3.17	0.32	0.30	0.42	0.68	0.78
373	25	5.31	3.55	0.35	0.33	0.41	0.72	0.85
375	30	5.17	4.15	0.42	0.40	0.47	0.77	0.91
Troughs								
363	10	-4.51	-0.28	-0.24	-0.22	-0.31	-0.65	-0.67
364	15	-2.98	-0.74	-0.30	-0.32	-0.47	-0.72	-0.81
371	20	-1.19	-0.91	-0.42	-0.42	-0.57	-0.76	-0.87
373	25	-0.64	-0.79	-0.45	-0.47	-0.60	-0.80	-0.89
375	30	-0.86	-0.08	-0.45	-0.49	-0.62	-0.77	-0.87

TABLE 14.6
 ROUGH WATER AVERAGE 1/10 LARGEST CRESTS AND TROUGHS
 OF MOTIONS AND ACCELERATIONS
 46.20 ft LCG

RUN GROUP	SPEED knots	PITCH deg	HEAVE ft	ACCELERATION, g				
				#1	#2	#3	#4	#5
Significant Wave Height 10.7 ft								
Crests								
378	10	10.24	8.06	0.39	0.32	0.47	0.79	0.97
380	15	10.80	8.43	0.50	0.57	0.79	1.29	1.54
383	20	11.11	7.87	0.62	0.66	1.28	2.21	2.71
386	25	11.23	10.01	1.03	1.11	1.63	2.66	3.16
390	30	10.65	11.26	1.57	1.59	2.20	3.28	3.82
Troughs								
378	10	-8.60	-3.97	-0.58	-0.46	-0.56	-0.76	-0.86
380	15	-7.39	-4.86	-0.72	-0.61	-0.76	-0.94	-1.08
383	20	-5.45	-4.90	-0.92	-0.71	-0.86	-1.05	-1.19
386	25	-4.65	-4.92	-1.11	-0.79	-0.94	-1.13	-1.26
390	30	-4.16	-3.98	-1.29	-0.90	-0.98	-1.15	-1.27

FIGURE 1 120 FT WPB, 39.6 FT LCG, SPEED 20 KNOTS
10.7 SIGNIFICANT WAVE HEIGHT

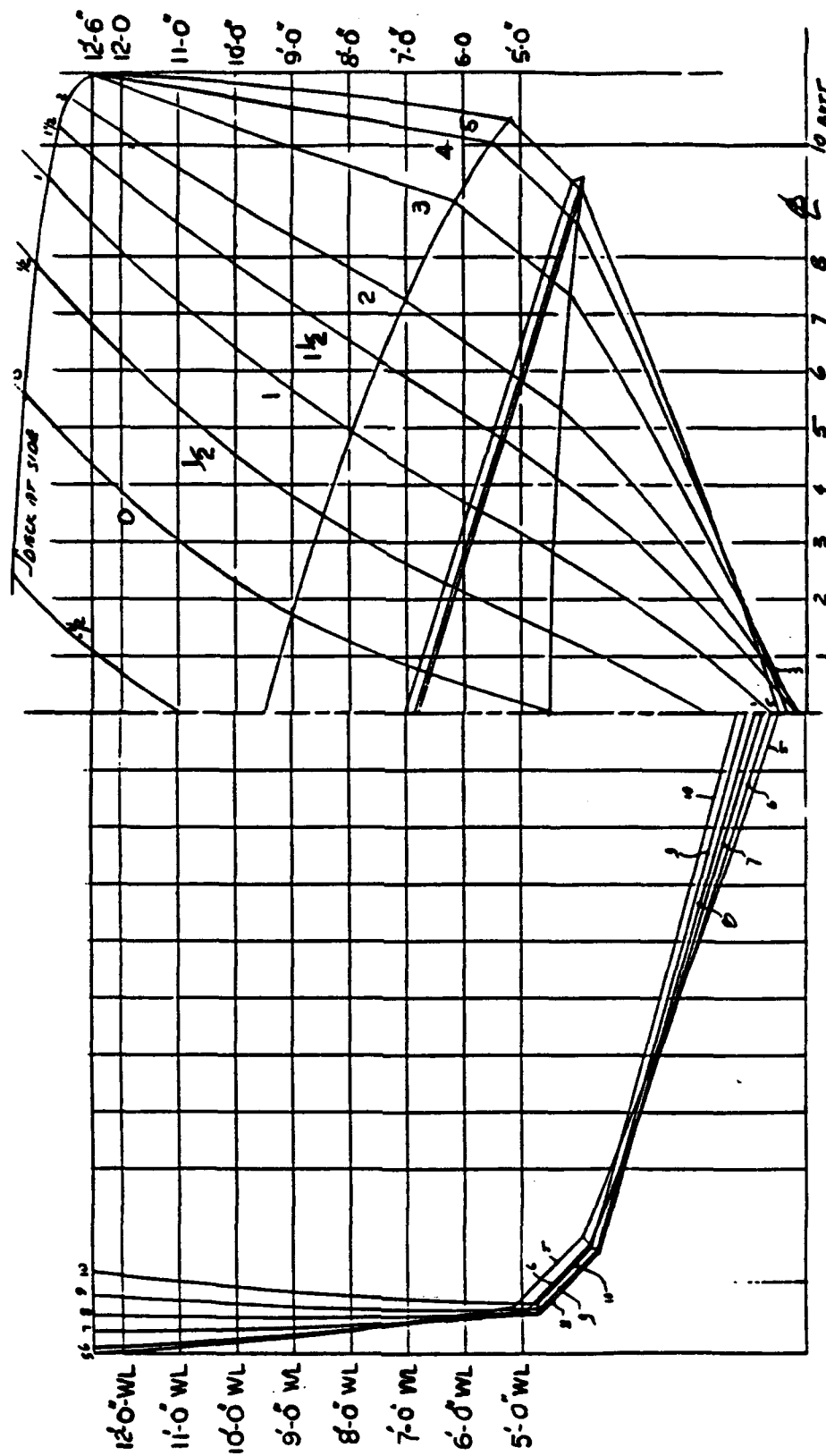


FIGURE 2 120 FT WPB BODY LINES

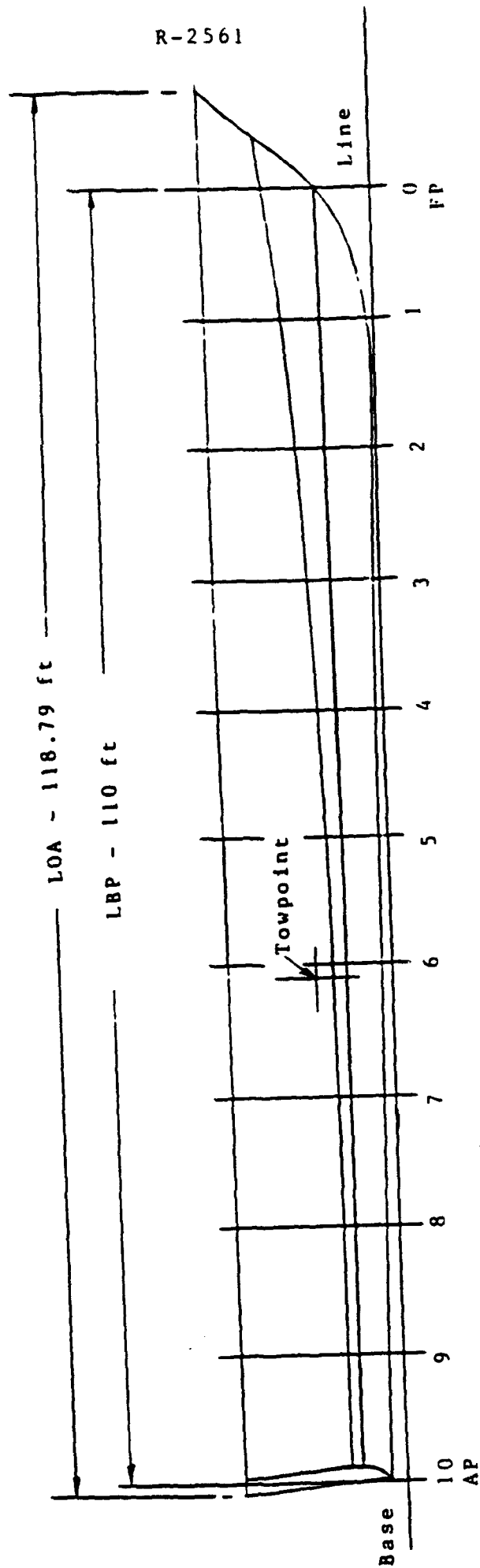


FIGURE 3 120 FT WPB PROFILE

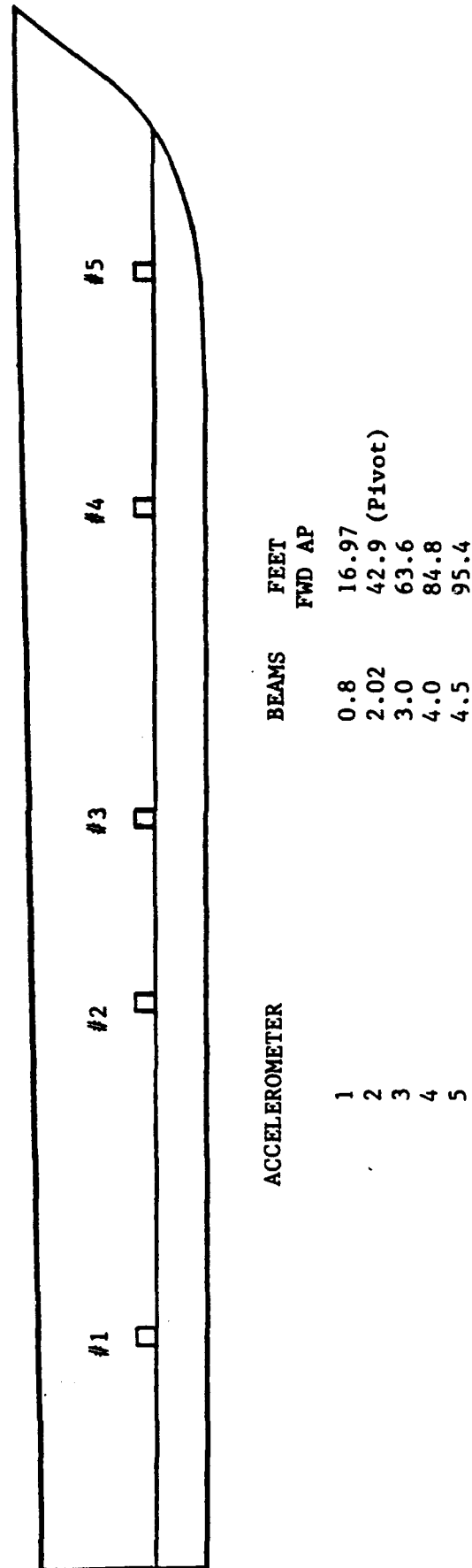


FIGURE 4 LOCATIONS OF VERTICAL ACCELEROMETERS

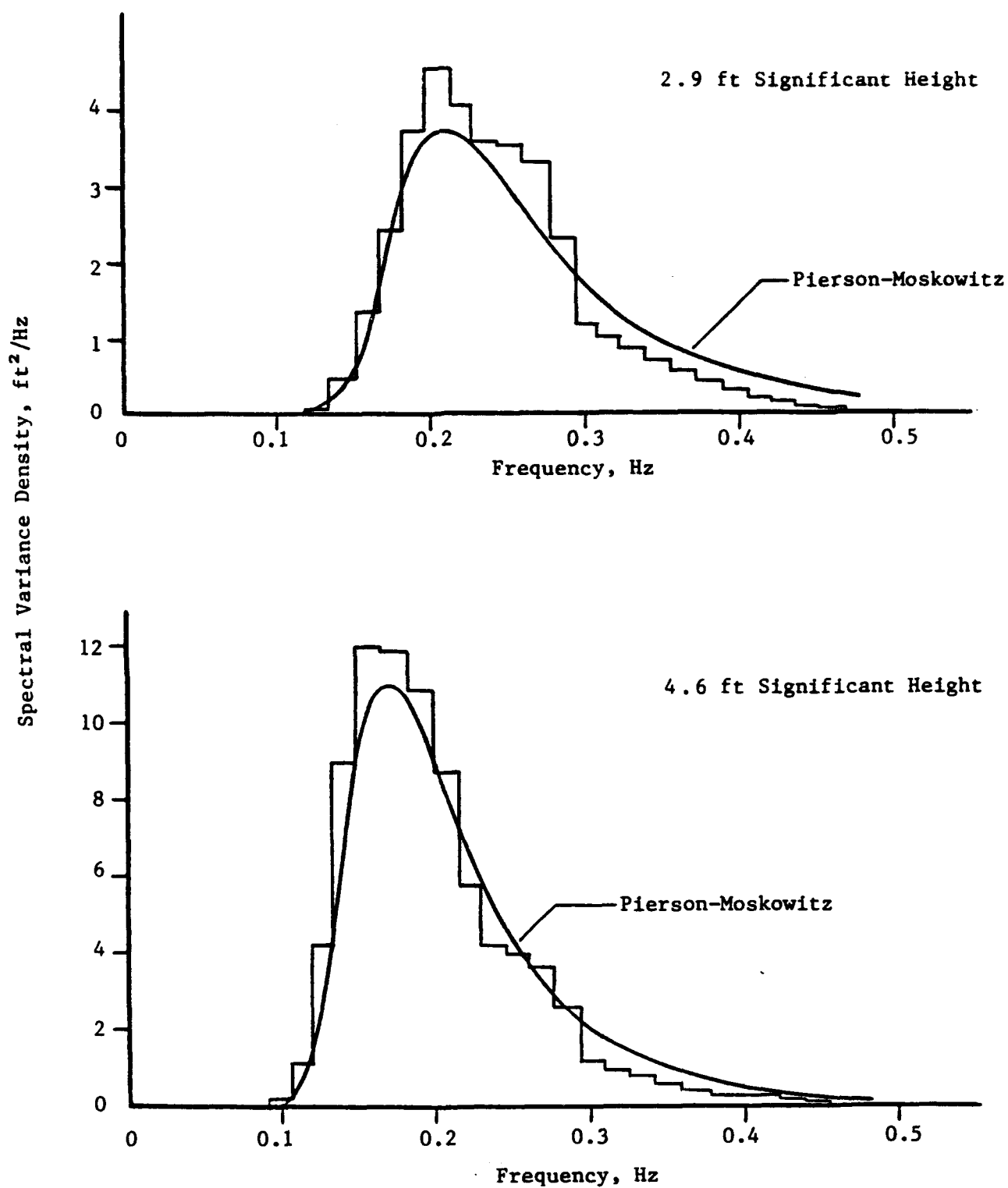


FIGURE 5 WAVE TEST SPECTRA

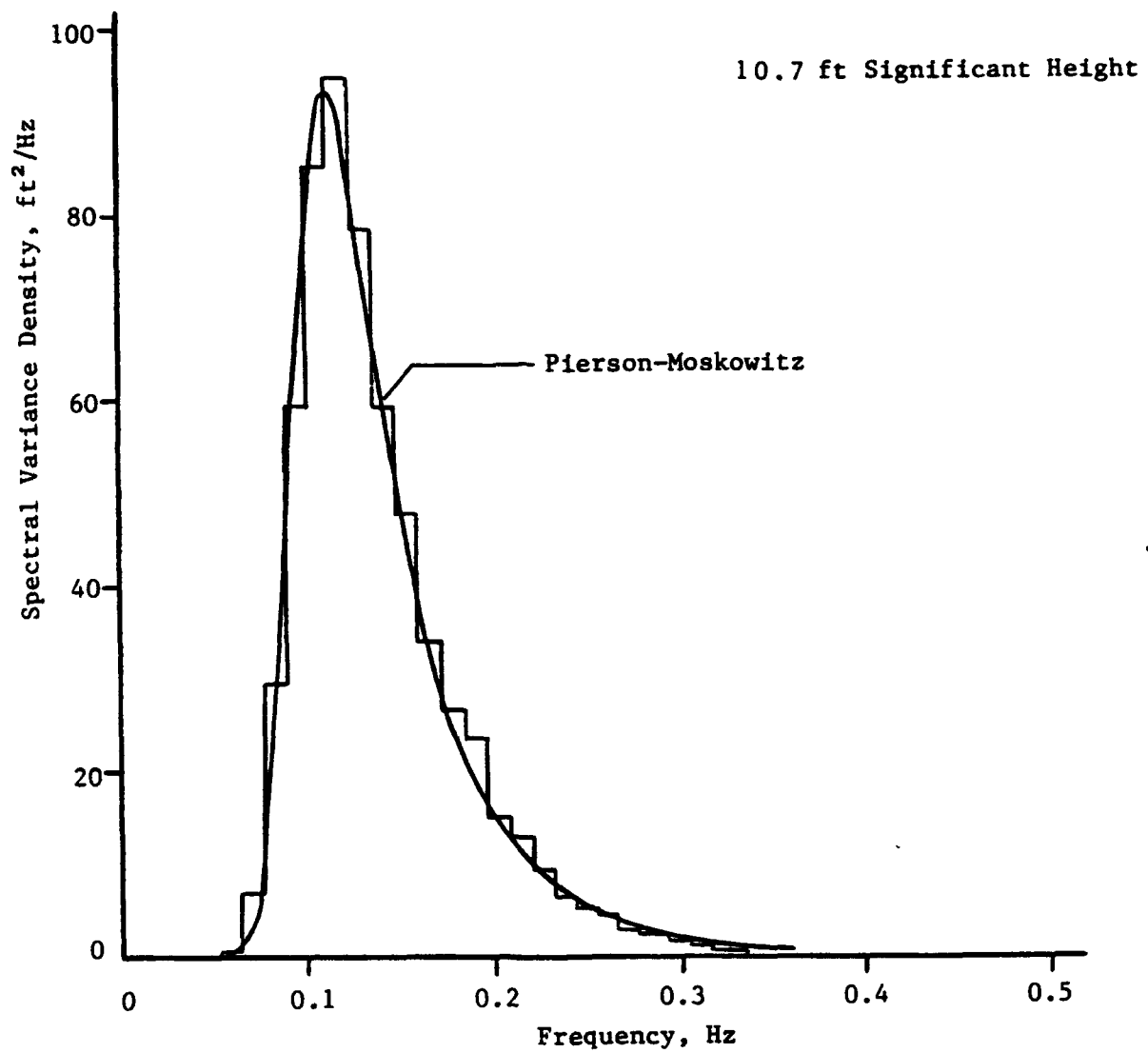


FIGURE 6 WAVE TEST SPECTRUM

R-2561

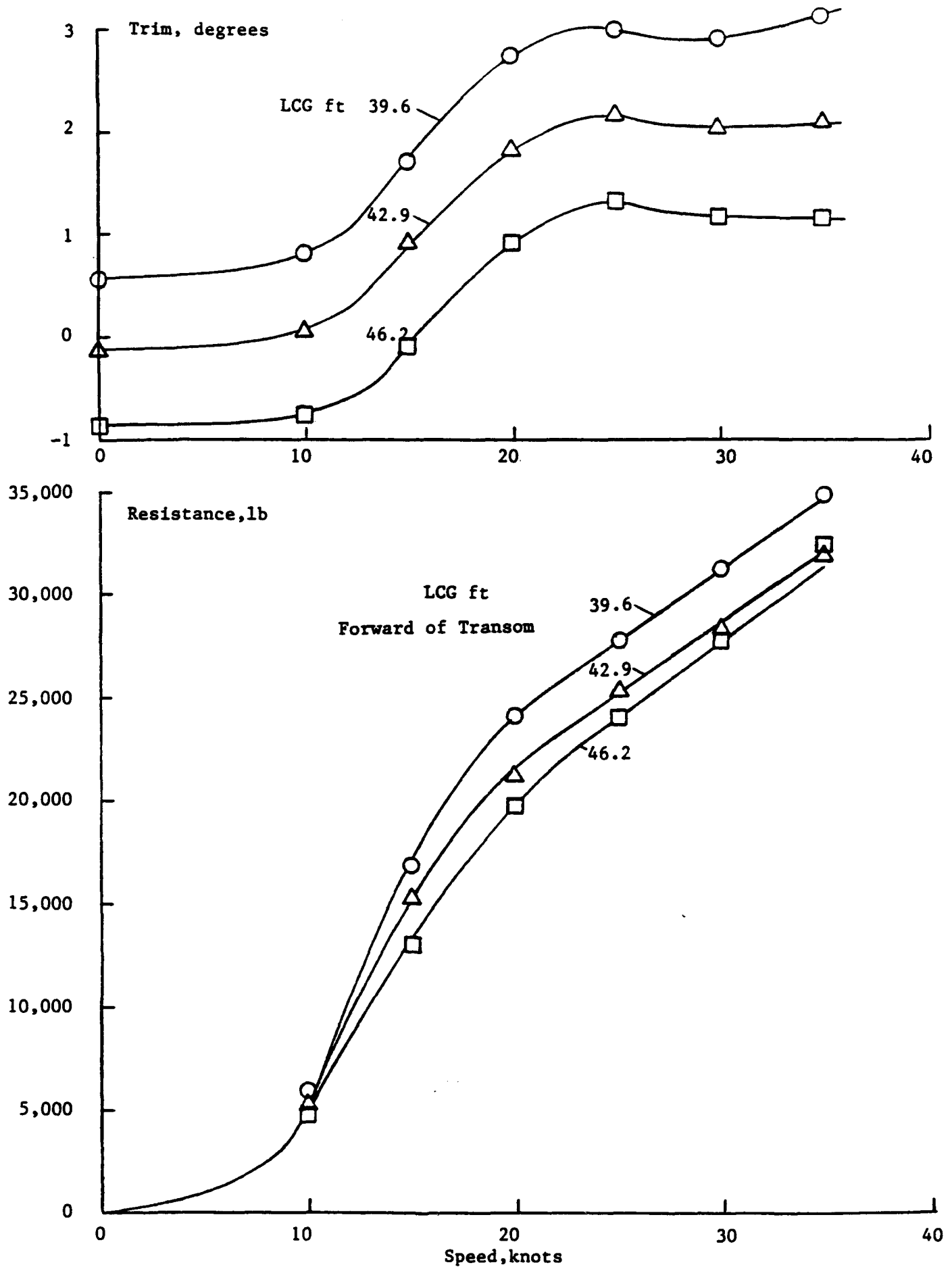


FIGURE 7 CALM WATER PERFORMANCE

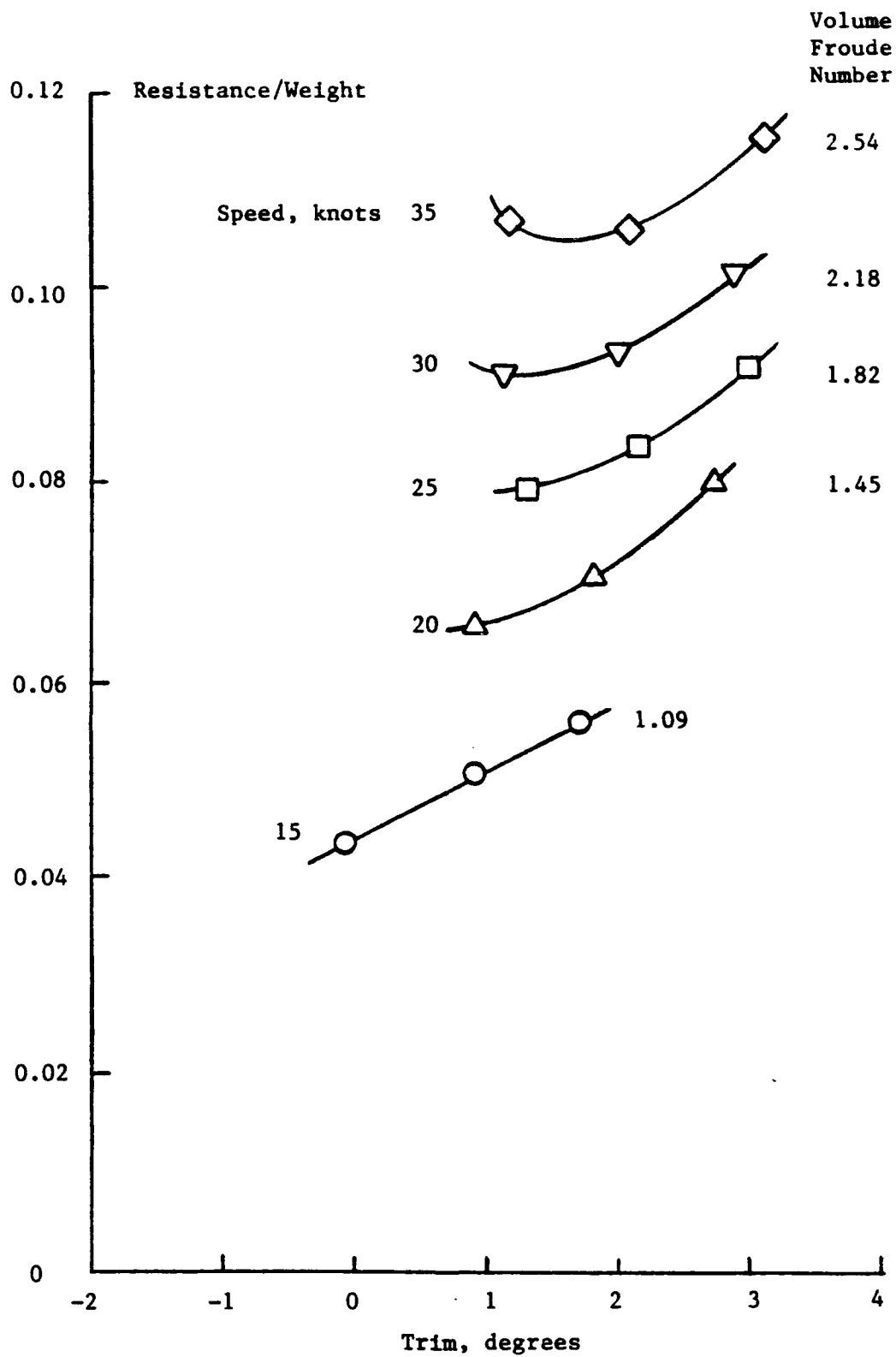


FIGURE 8 EFFECT OF LCG ON RESISTANCE

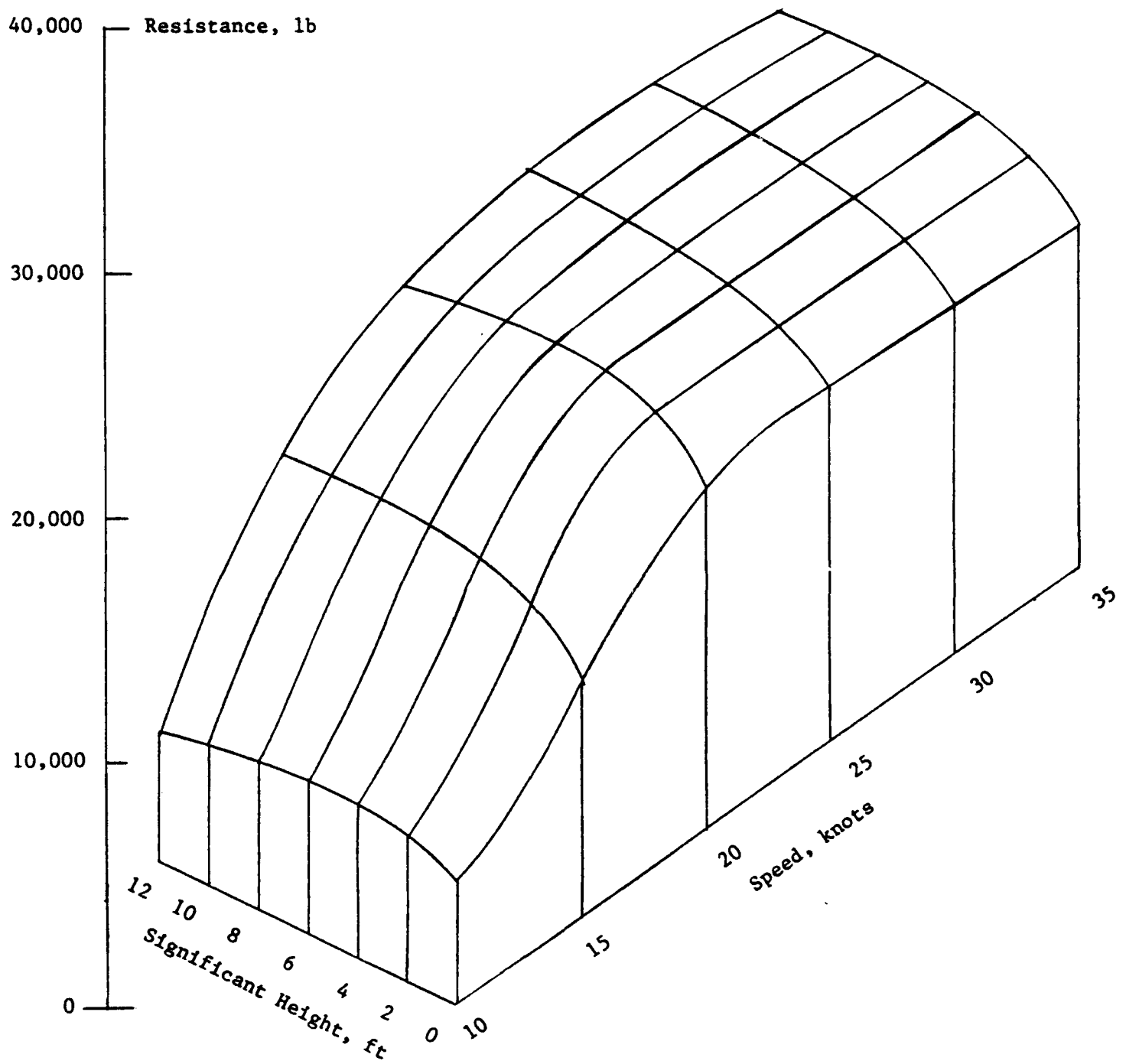


FIGURE 9 ROUGH WATER PERFORMANCE, LCG 42.9 ft FORWARD OF TRANSOM

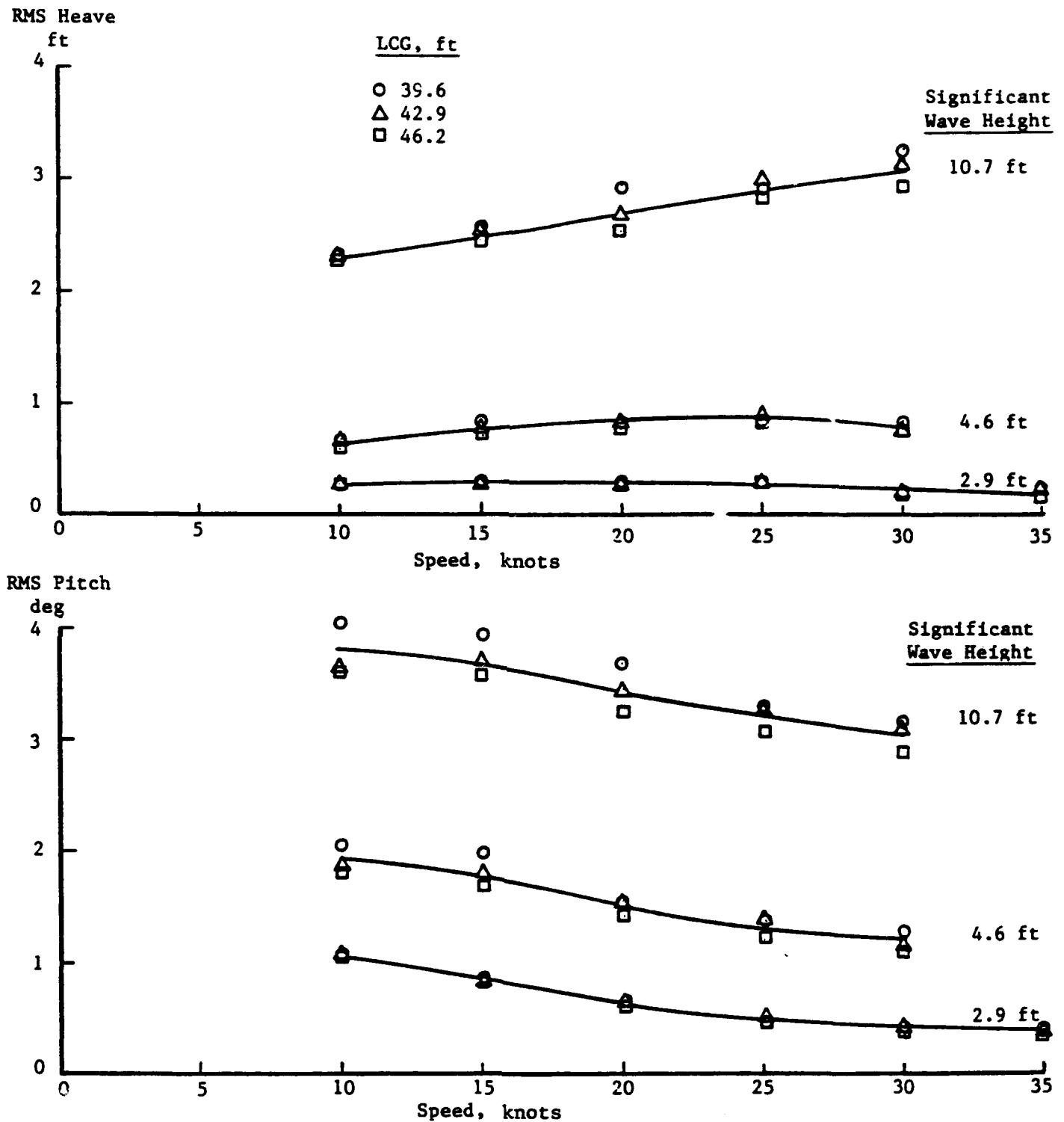


FIGURE 10 RMS HEAVE AND PITCH VERSUS SPEED

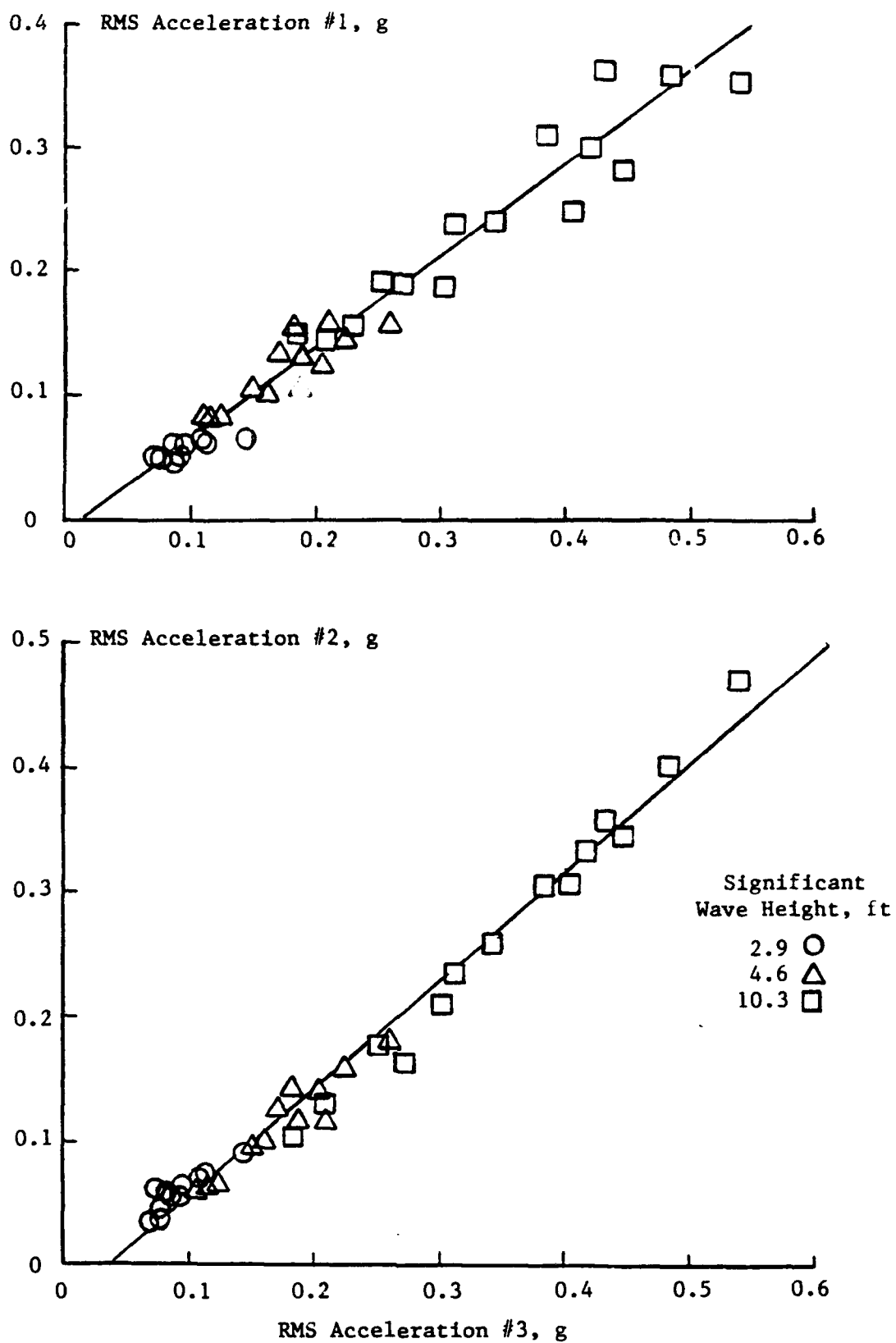
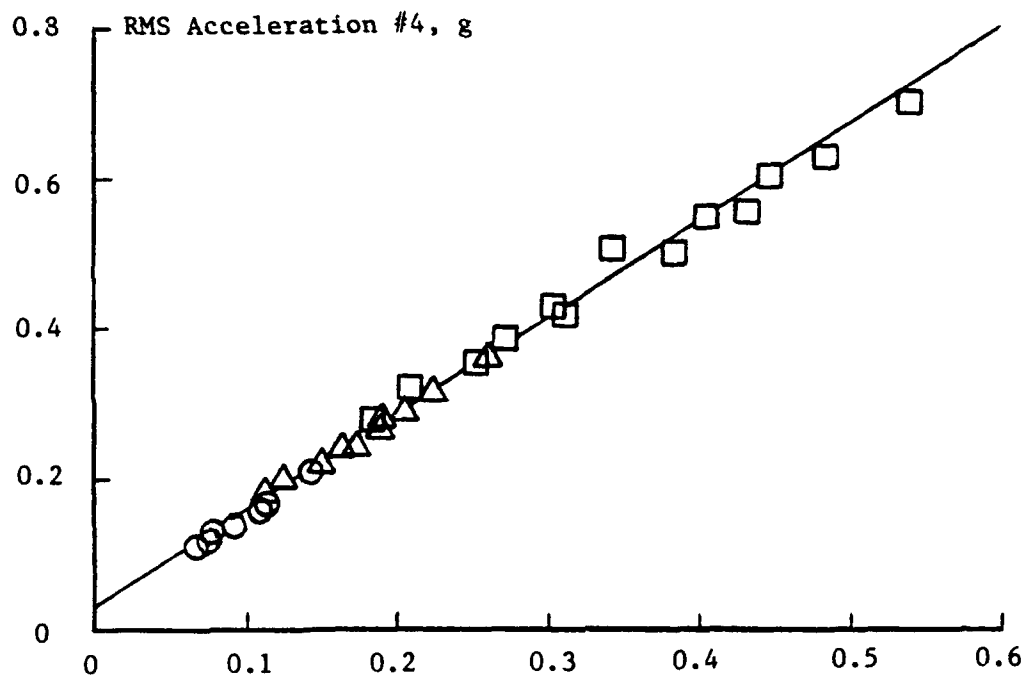
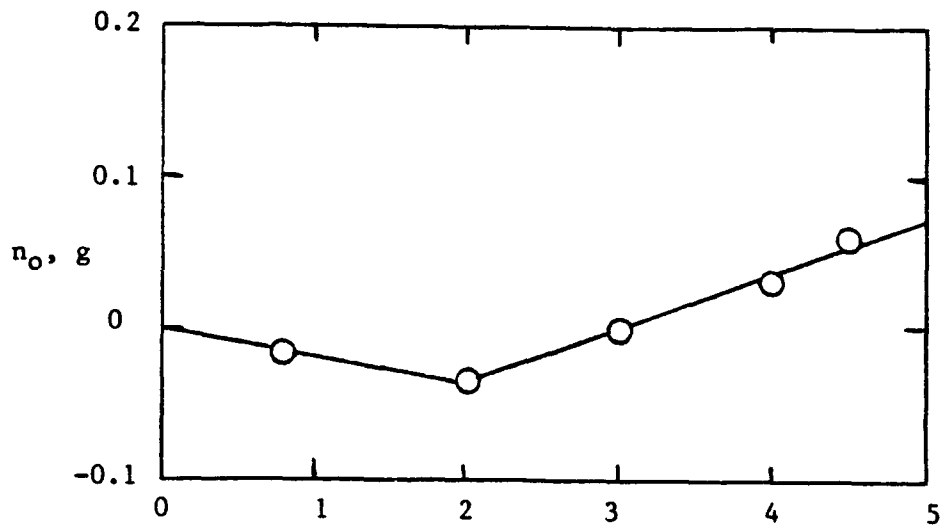


FIGURE 11 CORRELATION BETWEEN AFT AND MIDSHIP ACCELERATION





$$\frac{(\text{RMS Acceleration at } x/b) - n_o}{(\text{RMS Acceleration at } x/b = 3)}$$

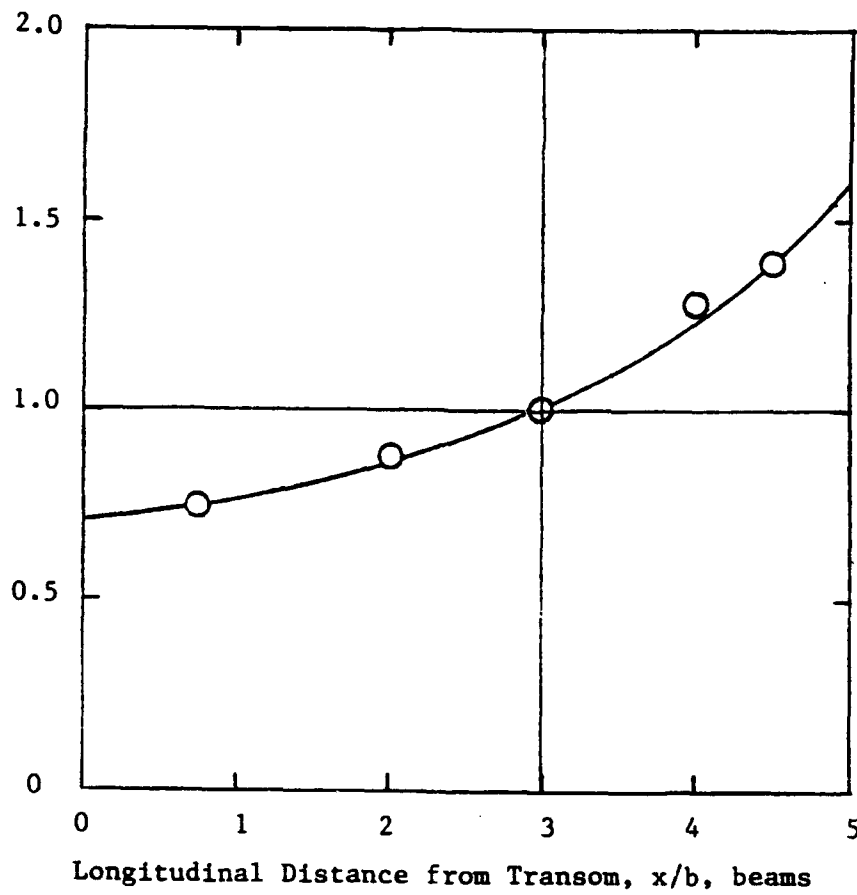


FIGURE 13 LONGITUDINAL VARIATION OF RELATIVE ACCELERATION

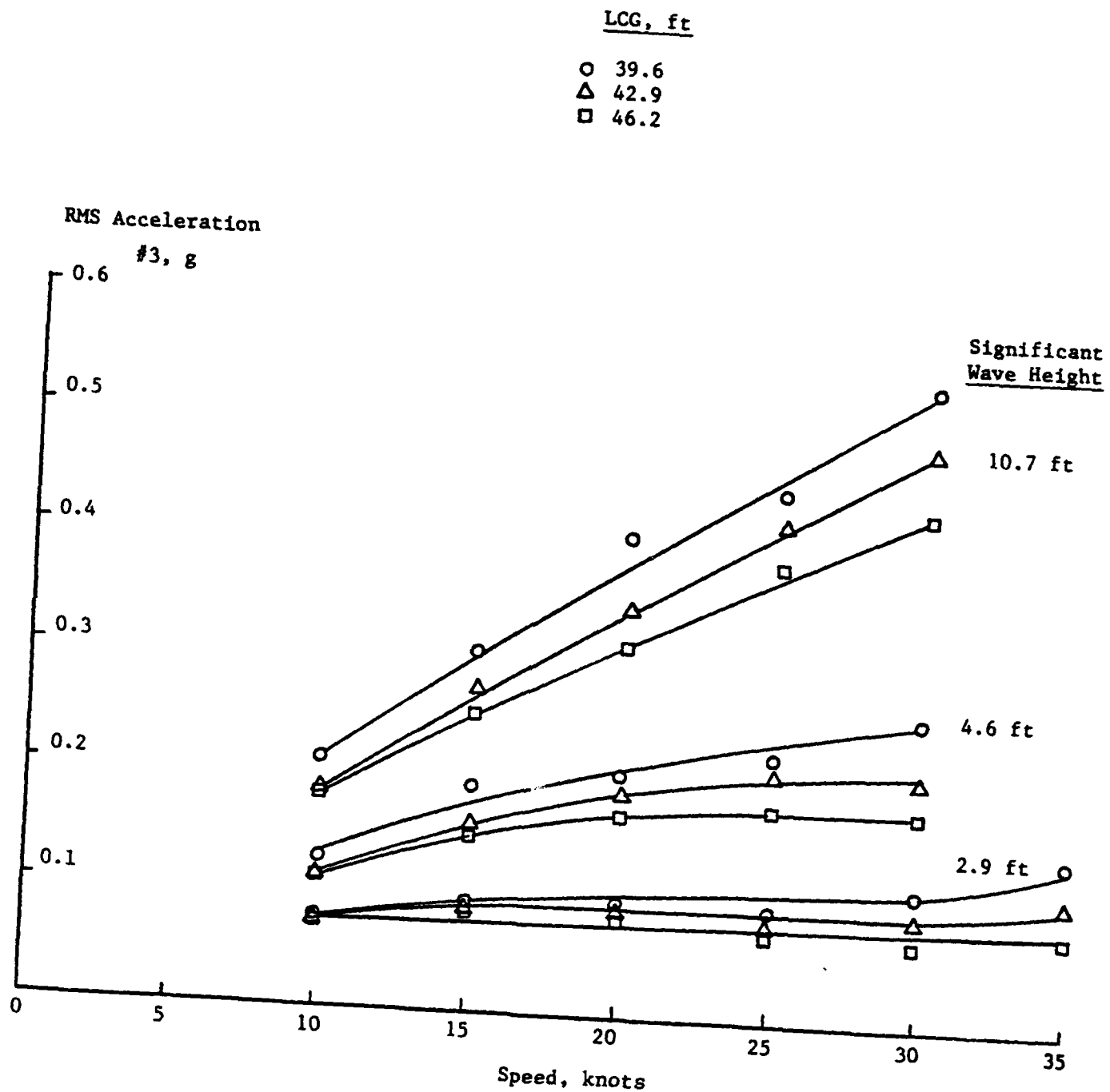


FIGURE 14 EFFECT OF SPEED, SEASTATE AND LCG ON MIDSHIP ACCELERATION